



April 28, 2021

Mr. Aaron Jozsef
Special Projects and Processes Manager
Resolve Marine Group
1510 SE 17th Street, Suite 400
Ft. Lauderdale, FL 33316

**Subject: Mayor's Point
Discharge Investigation Report
1029 Bay Street
Brunswick, Georgia**

Dear Mr. Jozsef:

Tetra Tech, Inc. (Tetra Tech) is pleased to submit this Discharge Investigation Report summarizing the results of our work at the Georgia Port Authority, Pac Comm, Ocean Petroleum, and Scott and Sons properties in Brunswick, Georgia. This report includes three enclosures and two attachments. Enclosure 1 contains figures. Enclosure 2 contains the Tetra Tech field logbook notes. Enclosure 3 contains the Tetra Tech data validation report. Attachment 1 is the surveyor's deliverable. Attachment 2 contains the laboratory analytical data packages.

If you have any questions or need additional copies of this letter report, please call me, John Snyder, at (678) 775-3085.

Sincerely,

A handwritten signature in black ink, appearing to read 'John Snyder'.

John Snyder PG, PE
Tetra Tech Field Team Lead

A handwritten signature in black ink, appearing to read 'Christopher Jones'.

Christopher Jones
Tetra Tech Project Manager



EXECUTIVE SUMMARY

The United States Coast Guard (USCG) has been investigating a continuous discharge of oil from the Georgia Port Authority (GPA) Mayor's Point Facility and the neighboring Pac Comm, Inc property into the navigable waterway of the East River since 2018. Various investigations by different parties have failed to conclusively identify the source of the discharge.

Tetra Tech was retained by Resolve Marine Group (a USCG response contractor) to conduct additional assessment work on the GPA property, Pac Comm property, and the Ocean Petroleum and Scott and Sons properties to the south.

In March 2021, Tetra Tech mobilized to the site to conduct the following tasks:

- install additional permanent monitoring wells on the Ocean Petroleum and Pac Comm properties,
- collect soil samples during the installation of the new wells,
- install and sample two temporary monitoring wells on the Scott and Sons property,
- sample selected existing monitoring wells on the Ocean Petroleum and GPA properties and all Tetra Tech-installed permanent monitoring wells,
- conducting a 48-hour, continuous, potentiometric survey of potentiometric conditions across the GPA, Pac Comm, and Ocean Petroleum properties.

A total of nine permanent monitoring wells and two temporary monitoring wells were installed during the mobilization. Subsurface soil samples were collected from the borings of each of the new permanent wells. Tetra Tech collected groundwater samples from a total of 20 wells across the four properties. Tetra Tech submitted groundwater samples from 18 wells for analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX), Total Petroleum Hydrocarbons (TPH) – Gasoline-range Organics (GRO), TPH – Diesel-range Organics (DRO), and TPH – Oil-range Organics (ORO). Tetra Tech submitted free product samples from three wells for petroleum fingerprint analysis.

Tetra Tech installed continuous water level data loggers in 14 wells across the site, and one data logger in the East River to collect approximately 48 hours of data to determine groundwater flow direction and examine the extent of tidal influence on groundwater flow.

Tetra Tech identified soil contamination on both the Pac Comm property and Ocean Petroleum property that exceeds Georgia Environmental Protection Division (GAEPD) Underground Storage Tank (UST) Program Comparison Levels for BTEX constituents, TPH-GRO and TPH-DRO.

Tetra Tech identified free product and BTEX concentrations in groundwater that exceed GAEPD UST Program Comparison Levels on the GPA, Pac Comm, and Ocean Petroleum properties. Petroleum fingerprinting indicates that free product present on the GPA property is consistent with gasoline; free product present on Ocean Petroleum is consistent with #2 fuel oil; and free product present between these two properties on the Pac Comm property is consistent with a mixture of gasoline and #2 fuel oil.

The water level data indicates that groundwater generally flows west, towards the East River. The data shows that the degree of tidal influence in the wells varies greatly across the site, ranging from up to five feet of amplitude in wells adjacent to the East River, to negligible amplitude at wells on the eastern portion of the properties. The data indicates that at some points in the tidal cycle groundwater along the



shore of the Pac Comm property is lower than the East River. In that area, at those times, groundwater may be moving eastward, from the river. Tetra Tech noted 4.5 feet of free product in well PC-03, located in this area. This column of free product was not present at all times and its presence can not be explained by available data.



BACKGROUND

The United States Coast Guard (USCG) has been investigating a continuous discharge of oil from the Georgia Port Authority (GPA) Mayor's Point Facility and the neighboring Pac Comm, Inc property into the navigable waterway of the East River since 2018 (see Figures 1 and 2 of Enclosure 1). The USCG Marine Safety Lab (MSL) identified the discharging oil as "weathered gasoline mixed with light fuel oil and lubricating oil." The GPA retained Terracon to conduct an investigation on the GPA property to identify possible sources of the oil. After conducting a ground-penetrating radar survey, Terracon installed numerous groundwater monitoring wells and collected numerous soil samples across the southwest portion of the GPA property. Terracon concluded that the source of the oil was not on the GPA property.

Terracon's investigation suggested that the most-likely source of the discharging oil was to the south of the GPA property. The parcel immediately to the south of the GPA property is owned by Pac Comm, Inc. and is currently leased to Weeks Marine as an equipment staging yard for the *Golden Ray* salvage operation. Previously, the Pac Comm property was used by various businesses that supported the local fishing fleet with fuel, stores, and ice for over half a century. Most recently it was used for storage and crushing of demolition debris for road and parking lot material. Records indicate that two underground storage tanks (USTs) were installed on site: an 8,000-gallon diesel tank and a 5,000-gallon gasoline tank. Information provided by USCG to Tetra Tech indicates that both tanks were removed by 2003.

South of the Pac Comm property is Ocean Petroleum, a fueling terminal with a tank battery containing at least three large vertical bulk storage tanks and eight horizontal storage tanks. To the south of Ocean Petroleum is the Scott and Sons property, a vacant parcel largely covered with debris.

In 2020, Tetra Tech conducted an initial site survey on the Pac Comm property to determine if USTs could be identified through geophysical methods, and if the source of the discharge could be identified through optical image profiling (OIP) tooling. The results of the geophysical survey did not suggest the presence of a UST on the Pac Comm property, although portions of the parcel were inaccessible, due to staged equipment related to the *Golden Ray* response. The OIP investigation revealed a petroleum plume on the western portion of the Pac Comm property, with gradient decreasing from south to north. This gradient suggests that the source of the plume is either in an inaccessible area of the southwest portion of the Pac Comm property, or from a parcel to the south of the Pac Comm property.

Based on the information generated by the site survey, the USCG decided to expand the investigation to additional properties and was able to secure access to the GPA facility, Ocean Petroleum, and the Scott and Sons parcel. Tetra Tech was tasked to:

- install additional permanent monitoring wells on the Ocean Petroleum and Pac Comm properties,
- collect soil samples during the installation of the new wells,
- install and sample two temporary monitoring wells on the Scott and Sons property,
- sample selected existing monitoring wells on the Ocean Petroleum and GPA properties and all Tetra Tech-installed permanent monitoring wells,
- conducting a 48-hour, continuous, potentiometric survey of potentiometric conditions across the GPA, Pac Comm, and Ocean Petroleum properties.

MOBILIZATION

Prior to mobilization, Tetra Tech alerted the GA811 (“call-before-you-dig”) system so that utility providers could mark buried lines around the four parcels of interest. Tetra Tech; Ground Penetrating Radar Systems Inc. (GPRS), a private utility mark-out company; and Geo Lab Probing Services Inc. (Geo Lab), a Georgia-licensed drilling company, mobilized to the site on March 8, 2021. The current Pac Comm tenant, Weeks Marine, expressed concerns about the potential spread of the COVID-19 virus. The USCG decided to limit interaction between Weeks Marine staff and personnel associated with this investigation by conducting all work between the hours of 1800 and 0600, when no personnel from Weeks Marine would be on site.

SOIL SAMPLING

Prior to completing any subsurface work during the investigation, GPRS screened all proposed boring locations with ground-penetrating radar and electromagnetic methods to ensure that no utility lines or other subsurface objects were present.

All locations where Tetra Tech was to install permanent wells were first logged using direct-push drilling methods to develop lithologic profiles. The borings were logged by the Tetra Tech field geologist and then screened with a photoionization detector (PID) in 1-foot intervals to semi-quantify volatiles present and the depths at which they occur. Small samples from each interval were placed in a Zip-lock bag and then allowed to warm for approximately ten minutes. The headspace within each bag was then screened with the PID and the volatile organic compound (VOC) concentration was recorded. Tetra Tech then collected a soil sample from the interval with the highest VOC concentration. These subsurface soil samples were submitted for laboratory analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX), Total Petroleum Hydrocarbons (TPH) – Gasoline-range Organics (GRO), TPH – Diesel-range Organics (DRO), and TPH – Oil-range Organics (ORO).

WELL INSTALLATION

Following soil logging, the drilling subcontractor installed 2-inch, permanent polyvinyl-chloride (PVC) wells at five locations on the Pac Comm property (wells PC-01 through PC-05) and four locations on Ocean Petroleum (wells OP-01 through OP-04) using hollow-stem augers (see Figure 3 of Enclosure 1). Tetra Tech attempted to capture the surface of the water table within the screened portion of the well to ensure that any free product sitting on top of the water table would be represented in the well. However, the shallow depth of the water table, coupled with the design requirements of the wells (specifically the height above the screen that the filter pack needed to extend and the thickness of bentonite grout required on top of the filter pack) limited the minimum depth of the screened portion of the wells to four feet below ground surface (ft bgs). Therefore, all wells, with the exception of PC-01, were completed to a total depth of 14 ft bgs, with a screen interval from 4 ft bgs to 14 ft bgs. Well PC-01 was completed to a total depth of 15 ft bgs and screened from 5 ft bgs to 15 ft bgs.

The 14-foot deep wells contained a sand filter pack installed from 2.5 ft bgs to 14 ft bgs with a 1.5-foot thick bentonite seal from 1 ft bgs to 2.5 ft bgs. For PC-01, the sand filter pack was installed from 3 ft bgs to 15 ft bgs with a bentonite seal placed from 1.5 ft bgs to 3 ft bgs. These construction details deviate slightly from the specifications recommended in the EPA guidance document *Design and Installation of Monitoring Wells* (SESDGUID-101-RD), January 2018, which specifies that the sand filter pack should

extend two feet above the screened interval and that the bentonite seal should be two feet thick. However, based on the shallow depth of the water table, the wells were constructed as close to design specifications as possible, while still meeting project requirements for structural and sampling integrity.

All permanent monitoring wells were completed with a flush-mount manhole cover set in a 3-foot by 3-foot concrete pad. Wells were then developed using a submersible pump to flush the well of sediment and allowed to equilibrate for at least 48 hours prior to sampling. All newly installed wells were surveyed by a Georgia-licensed surveyor to determine latitude, longitude, and top-of-casing elevation to the nearest one-hundredth of a foot. The results of the survey are included in Attachment 1.

TEMPORARY WELLS

On March 9, the drilling subcontractor advanced two borings to 9 feet bgs on the Scott and Sons property and installed 1-inch PVC temporary wells in the boreholes. The wells, designated SS-1 and SS-2, were constructed with a five foot screened interval and four feet of riser. Tetra Tech purged these temporary wells with a peristaltic pump for 10 to 15 minutes. After purging the wells, Tetra Tech immediately collected groundwater samples from each well for laboratory analysis of BTEX, TPH-GRO, TPH-DRO, and TPH-ORO. After sampling, the drillers removed the PVC and abandoned each borehole with hydrated bentonite pellets. The temporary well locations are depicted on Figure 3 of Enclosure 1.

PERMANENT MONITORING WELL SAMPLING

Tetra Tech sampled all newly installed monitoring wells and selected existing monitoring wells on the Ocean Petroleum and GPA properties. The selection of which existing wells to sample was in consultation with EPA project advisors, with the goal of providing good coverage of the suspected impacted areas across the site. Sampling was conducted in general accordance with EPA guidance document *Groundwater Sampling* (SESDPROC-301-RD), April 2017, using the “Low-Flow Method” with a peristaltic pump. Tetra Tech submitted the groundwater samples for laboratory analysis of BTEX, TPH-GRO, TPH-DRO, and TPH-ORO.

Additionally, the free product/groundwater from three selected wells (MW-11 at Ocean Petroleum, PC-03 at Pac Comm, and GPA-01 at the GPA property) was submitted for petroleum fingerprinting analysis to determine the likely type of product present in the wells.

Note: due to the large volume of free product encountered in PC-03, the sample collected from that well (PC03-GW) was submitted for fingerprint analysis only.

POTENTIOMETRIC SURVEY

To determine groundwater flow direction and evaluate the magnitude of tidal influence on the water table across the site, Tetra Tech collected approximately 48 hours of continuous groundwater data from 14 wells across the site and from the river. Tetra Tech used In-Situ Level TROLL 700 data loggers installed in each of the 14 wells selected by EPA on-site personnel, and placed one in the East Brunswick River, adjacent to the GPA dock, to record water level readings in 1-minute intervals. The data loggers recorded water depth, based on a pressure sensor located within the instrument. However, because this sensor is not referenced to any fixed elevation, the raw data collected required correction. After approximately two tidal cycles, Tetra Tech manually gauged each well that contained a data logger, recording the water levels in each well. The manually-acquired elevation readings were then used to correct the raw pressure



data recorded by the data logger by referencing the pressure readings to top-of-casing elevation data. Tetra Tech also recorded free-product thicknesses, if encountered, during the manual gauging.

RESULTS

The following subsections summarize the results of each of the activities described above. Additional materials are found in the enclosures and attachments.

Subsurface Soil Sample Results

Tetra Tech compared the laboratory analytical results to Georgia Environmental Protection Division (EPD) Underground Storage Tank Management Program comparison values used for closure at UST sites. Soil samples collected from borings PC1 and PC2, in the central and eastern portions of the Pac Comm site, did not contain petroleum-related contamination at levels exceeding the comparison values. Similarly, the soil sample from OP1, collected from the northeastern portion of the Ocean Petroleum property, did not contain contamination at levels that exceed the comparison levels. Soil samples from borings closer to the shoreline (PC3, PC4, PC5, OP2 and OP3) all showed exceedances for BTEX constituents and TPH values. The soil sample from OP4, advanced in the southeast corner of the Ocean Petroleum property, contained a TPH-DRO exceedance, but no BTEX or TPH-GRO exceedance. The full laboratory data package for these samples is included in Attachment 2.

Table 1 on the following page contains a summary of the analytical results from the subsurface soil samples collected during well installation activities:

Table 1: Subsurface Soil Sampling Results

Sample ID	Depth	Benzene (µg/Kg)	Ethylbenzene (µg/Kg)	Toluene (µg/Kg)	Xylenes, Total (µg/Kg)	Gasoline Range Organics (mg/Kg)	Diesel Range Organics (mg/Kg)	Oil Range Organics (mg/Kg)
Comparison Levels¹		17	18,000	115,000	700,000	10	10	Not listed
PC1-SB	6 to 7 ft bgs	7.2 U	7.2 U	7.2 U	6.1 J	14 U	11 J+	26 U
PC2-SB	4 to 5 ft bgs	5.9 U	5.9 U	1.1 J	12 U	10 U	5.8 J+	21 U
PC3-SB	5 to 6 ft bgs	130,000	360,000	850,000	1,800,000	8,900	4,500	260
PC4-SB	5 to 6 ft bgs	92,000	160,000	320,000	800,000	6,600	2,700	300
PC5-SB	5 to 6 ft bgs	64,000	140,000 J	150,000 J	650,000 J	2,700	1,200	120 U
PC5-SB-DUP		26,000 J	68,000	42,000 J	320,000 J	2,900	1,400	120 U
OP1-SB	4 to 5 ft bgs	5.5 U	11 U	1 J	11 U	13 U	23 J+	5.5 U
OP2-SB	1 to 2 ft bgs	54,000	33,000	4,700	31,000	610	580	76
OP3-SB	2 to 3 ft bgs	10,000	13,000	24,000	71,000	1,200	100	120 U
OP4-SB	6 to 7 ft bgs	4 J	6.8	14 J+	37	3.9 J	210	58

Notes:

¹ Comparison Levels are based on Table B Soil Threshold Levels in the Georgia Environmental Protection Division *UST Closure Report Guidance Document*

BOLD Bolded values represent exceedances of the comparison levels

DUP Duplicate sample

ft bgs feet below ground surface

J The analyte was positively identified. The reported value is estimated

J+ The analyte was positively identified. The reported value is estimated, biased high

µg/Kg micrograms per kilogram

mg/Kg milligrams per kilogram

OP Ocean Petroleum Property

PC Pac Comm Property

SB Subsurface soil sample

U The analyte was not detected. The associated value is the reporting limit



Groundwater Sample Results

Tetra Tech compared analytical results for BTEX compounds to Georgia EPD Underground Storage Tank Management Program comparison standards. Figure 4A depicts the BTEX isocontours for BTEX contaminants in groundwater across the sites. Georgia EPD UST Management Program groundwater comparison standards do not exist for the TPH categories; however, TPH results are included to provide a way to compare the magnitude and makeup of petroleum contamination across the site. Figures 4B, 4C, and 4D in Enclosure 1 depict isocontours based on the concentrations of the various TPH contaminants in groundwater across the site. Tables 2 through 5 summarize the analytical results for groundwater samples collected across the four properties.

Georgia Port Authority Property

Table 2 below provides a summary of the groundwater sample results collected from existing monitoring wells on the GPA property.

Table 2: Georgia Port Authority Groundwater Results

Analyte	Units	GAEPD Comparison Standard ¹	GPA05-GW	GPA09-GW	GPA11-GW
Benzene	µg/L	5	5,800 J-	1,200	7.8
Ethylbenzene	µg/L	700	2,500 J-	1,200	1.0 U
Toluene	µg/L	1,000	200 UJ	62	1.0 U
Xylenes	µg/L	10,000	6,800 J-	1,200	0.41 J
Gasoline Range Organics	mg/L	Not listed	46	18	0.1 U
Diesel Range Organics	mg/L		5	1.6	0.18 J
Oil Range Organics	mg/L		2.5 U	2.0 U	2.0 U

Notes:

¹ Comparison Levels are based on Type 3 GAEPD Risk Reduction Standards

BOLD The associated value exceeds the comparison criteria

GAEPD Georgia Environmental Protection Division

GPA Georgia Port Authority

GW Groundwater sample

J The analyte was positively identified. The reported value is estimated

J- The analyte was positively identified. The reported value is estimated, biased low

µg/L micrograms per liter

mg/L milligrams per liter

U The analyte was not detected. The associated value is the reporting limit

UJ The analyte was not detected. The associated value is the reporting limit, with is considered approximate

All three groundwater samples collected from the GPA property contained benzene at concentrations above the Georgia EPD comparison standard. GPA-05 and GPA-09 also exceeded the standard for ethylbenzene. Additionally, a free product sample collected from well GPA-01 and submitted for fingerprint analysis was found to most-closely resemble unleaded gasoline.

Pac Comm Property

Table 3 below provides a summary of the groundwater sample results collected from newly installed monitoring wells on the Pac Comm property.

Table 3: Pac Comm Groundwater Results

Analyte	Units	GAEPD Comparison Standard ¹	PC01-GW	PC02-GW	PC04-GW	PC05-GW
Benzene	µg/L	5	1.0 U	1.0 U	270	1,300
Ethylbenzene	µg/L	700	0.59 J	1.0 U	120	760
Toluene	µg/L	1,000	1.0 U	1.0 U	180	460
Xylenes	µg/L	10,000	2.3	1.0 U	530	1,400
Gasoline Range Organics	mg/L	Not listed	0.1 U	0.1 U	5.1	9.9
Diesel Range Organics	mg/L		0.26 J	0.34 J	1.3 J+	0.96 J+
Oil Range Organics	mg/L		2.3 U	2.5 U	2.4 U	2.0 U

Notes:

- ¹ Comparison Levels are based on Type 3 GAEPD Risk Reduction Standards
- BOLD** The associated value exceeds the comparison criteria
- GAEPD Georgia Environmental Protection Division
- GW Groundwater sample
- J The analyte was positively identified. The reported value is estimated
- J+ The analyte was positively identified. The reported value is estimated, biased high
- PC Pac Comm
- µg/L micrograms per liter
- mg/L milligrams per liter
- U The analyte was not detected. The associated value is the reporting limit

Tetra Tech installed five monitoring wells on the Pac Comm property. Laboratory analytical results revealed monitoring wells PC-04 and PC-05 contained BTEX constituents at concentrations that exceeded the GAEPD comparison standards, as well as detectable levels of TPH. Tetra Tech did not collect a groundwater sample from well PC-03 due to the volume of free product encountered during sampling. Tetra Tech did collect a free product sample from PC-03 for fingerprint analysis and the sample (PC03-GW) was found to most-closely resemble a gasoline/diesel/#2 fuel oil mixture.

Ocean Petroleum Property

Tables 4 and 5 below provide a summary of the groundwater sample results collected from newly installed and existing monitoring wells on the Ocean Petroleum property.

Table 4: Ocean Petroleum Groundwater Results (Tetra Tech installed monitoring wells)

Analyte	Units	GAEPD Comparison Standard ¹	OP01-GW	OP02-GW	OP03-GW	OP04-GW	OP5-GW
Benzene	µg/L	5	0.7 J	210	59 J-	0.43 J	100
Ethylbenzene	µg/L	700	0.65 J	130	4.8 J-	0.41 J	6,200
Toluene	µg/L	1,000	1.4	310	8.7 J-	0.74 J	540
Xylenes	µg/L	10,000	3.8	520	7.0 J-	1.9	19,000
Gasoline Range Organics	mg/L	Not listed	0.1 U	4.9	0.54	0.1 U	67
Diesel Range Organics	mg/L		0.31 U	9.5	0.97 J+	0.68 J+	10
Oil Range Organics	mg/L		2.1 U	1.4 J	0.35 J	3.0 U	2 U

Table 5: Ocean Petroleum Groundwater Results (existing monitoring wells)

Analyte	Units	GAEPD Comparison Standard ¹	MW01-GW	MW01-GW-DUP	MW11-GW	MW13-GW	MW18-GW
Benzene	µg/L	5	5,400	5,200	770	480	600
Ethylbenzene	µg/L	700	1,000	1,000	380	780	230
Toluene	µg/L	1,000	700	710	1,400	26	190
Xylenes	µg/L	10,000	3,900	3,800	1,800	2,400	630
Gasoline Range Organics	mg/L	Not listed	37	38	11	14	5.9
Diesel Range Organics	mg/L		7.6 J+	6.8 J+	12	12	3.0
Oil Range Organics	mg/L		1.6 J	1.6 J	1.4 J	0.88 J	2.0 U

Notes:

- ¹ Comparison Levels are based on Type 3 GAEPD Risk Reduction Standards
- BOLD** The associated value exceeds the comparison criteria
- GAEPD Georgia Environmental Protection Division
- GW Groundwater sample
- J The analyte was positively identified. The reported value is estimated
- J+ The analyte was positively identified. The reported value is estimated, biased high
- J- The analyte was positively identified. The reported value is estimated, biased low
- µg/L micrograms per liter
- mg/L milligrams per liter
- MW monitoring well (existing)
- OP Ocean Petroleum
- U The analyte was not detected. The associated value is the reporting limit



The two monitoring wells located upgradient of the ASTs (OP-01 and OP-04) did not contain BTEX compounds at levels exceeding GAEPD comparison standards; the laboratory analytical results for all of the other monitoring wells on the property where Tetra Tech collected samples exceeded the standards for one or more BTEX compounds.

Tetra Tech also collected a free product sample from existing monitoring well MW-11, which was submitted for fingerprint analysis. Results of the fingerprint analysis identified the free product to most-closely resemble #2 fuel oil.

Scott and Sons Property

Table 6 below provides a summary of the groundwater sample results collected from the two temporary wells installed on the Scott and Sons property.

Table 5: Scott and Sons Groundwater Results

Analyte	Units	GAEPD Comparison Standard ¹	SS1-GW	SS2-GW
Benzene	µg/L	5	1.0 U	1.0 U
Ethylbenzene	µg/L	700	1.0 U	1.0 U
Toluene	µg/L	1,000	1.0 U	1.0 U
Xylenes	µg/L	10,000	1.0 U	1.0 U
Gasoline Range Organics	mg/L	Not listed	0.1 U	0.1 U
Diesel Range Organics	mg/L		1.2	0.46 J+
Oil Range Organics	mg/L		1.0 J	2.3 U

Notes:

- ¹ Comparison Levels are based on Type 3 GAEPD Risk Reduction Standards
GAEPD Georgia Environmental Protection Division
GW Groundwater sample
J The analyte was positively identified. The reported value is estimated
J+ The analyte was positively identified. The reported value is estimated, biased high
µg/L micrograms per liter
mg/L milligrams per liter
SS Scott and Sons
U The analyte was not detected. The associated value is the reporting limit

Laboratory analysis of the two Scott and Sons groundwater samples did not detect any BTEX compounds or TPH-GRO in either of the samples. Sample SS1-GW had a detection of TPH-DRO and TPH-ORO; SSW-GW had a detection of TPH-DRO

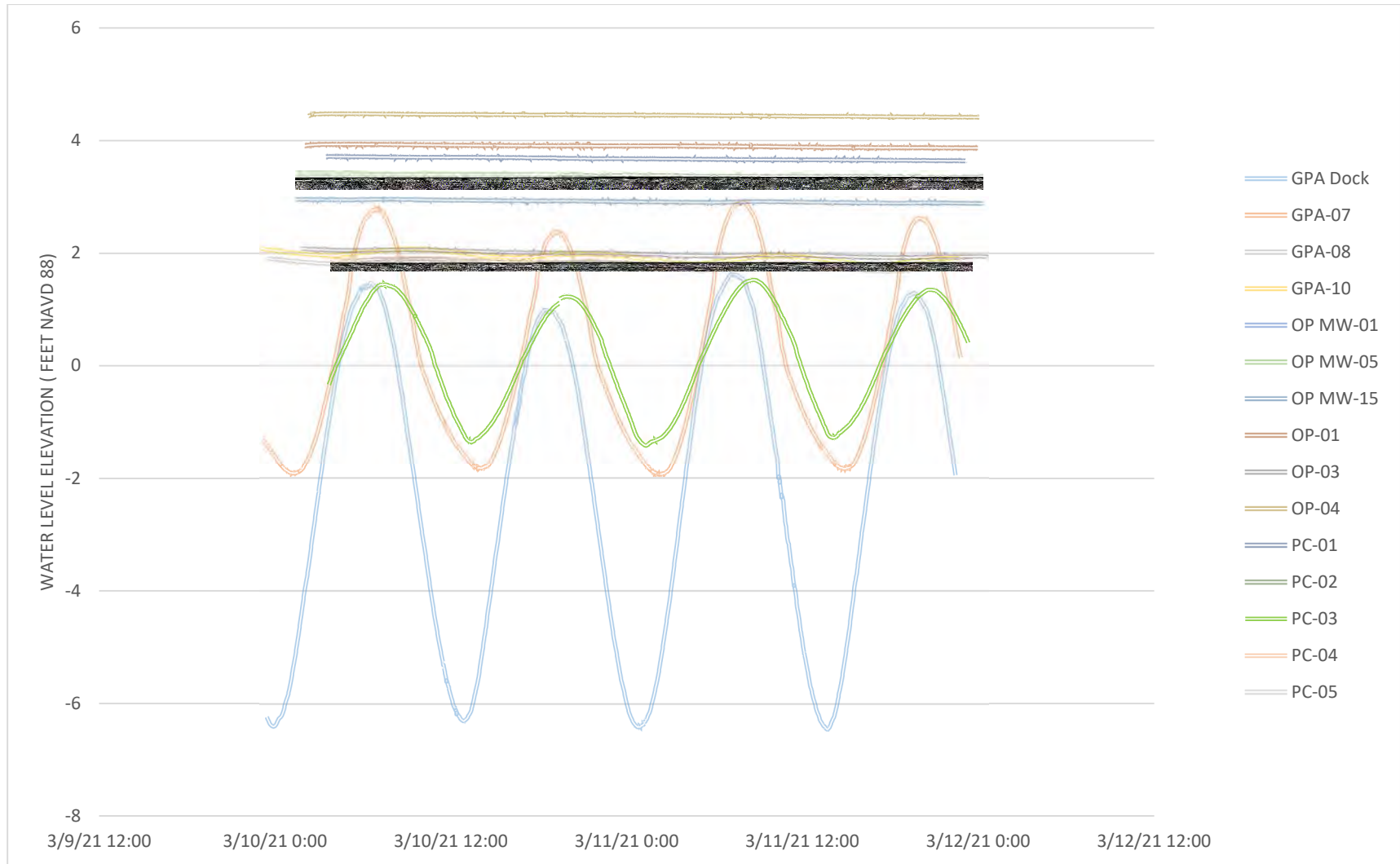
Water Level Monitoring

Tetra Tech downloaded data sets from the 14 dataloggers placed in selected wells and the datalogger placed in the East Brunswick River. The data was then corrected against survey data to provide corresponding water level elevations, and plots of each data set were overlain onto a single plot (see Plot 1, below). The river level (GPA-Dock) shows a tidal amplitude of approximately eight feet. Well GPA-07, shown in orange, has the greatest tidal fluctuation of any of the wells, with a difference in water elevation of approximately 5 feet between high and low tide. Well PC-03, displayed on the plot in green, also demonstrates a large degree of tidal influence, with a difference of nearly three feet between high and low tide. Other wells show minor degrees of tidal influence and there is a strong correlation between tidal influence and proximity to the river.

Tetra Tech evaluated the potentiometric conditions at the site at four times in the tidal cycle: high tide, the middle of ebb tide, low tide, and the middle of flood tide. The potentiometric surfaces at these four times are presented in Figures 5A through 5D in Enclosure 1.

The results of the monitoring show a fairly consistent gradient, from the east directly towards the East Brunswick River, with a slight northward component. However, at high tide, the river level is higher than the water level in well OP-03, indicating that there is likely migration from the river to the near-shoreline.

Plot 1 Water Level Elevations



CONCLUSIONS AND DISCUSSION

Tetra Tech has identified soil contamination on both the Pac Comm property and Ocean Petroleum property that exceeds GAEPD UST Program Comparison Levels for BTEX constituents, TPH-GRO and TPH-DRO.

Tetra Tech identified free product and BTEX concentrations in groundwater that exceed GAEPD UST Program Comparison Levels on the GPA, Pac Comm, and Ocean Petroleum properties. Petroleum fingerprinting indicates that free product present on the GPA property is consistent with gasoline; free product present on Ocean Petroleum is consistent with #2 fuel oil; and free product present between these two properties on the Pac Comm property is consistent with a mixture of gasoline and #2 fuel oil.

The plumes depicted in Figures 4A through 4D, combined with the fingerprinting data, suggest that there are, at a minimum, two separate sources: one to the north of Pac Comm and one to the south of Pac Comm. However, the absence of BTEX and TPH data from well PC-03 presents a data gap when combined with observations made during the field event:

- Well PC-03 was installed and developed on 3/8/21. No free product was noted during development;
- During manual gauging of PC-03 on 3/10/21, no free product was noted;
- During the early morning of 3/12/21, 4.5 feet of free product were encountered in PC-03.

The soil sample collected during the installation of PC-03 contained the highest levels of BTEX, TPH-GRO, and TPH-DRO of any soil sample collected. Well PC-03 shows a high degree of tidal influence and appears to receive water from both the east and the west at high tide. Well PC-05 is less than 40 feet upgradient of PC-03, but no free product was observed in PC-05 when the 4.5 feet of free product was observed in PC-03.

The data collected during this investigation does not provide an immediate explanation for the sporadic presence of this amount of free product in well PC-03. Two possible explanations are the existence of a preferential pathway, or a third source located on the Pac Comm property. Preferential pathways are irregularities in the subsurface, from either natural or anthropogenic causes, that channelize fluids and can transport contaminants across—or even against—broader potentiometric gradients. Building foundations and abandoned piping are potential preferential pathways and the property's long history of development leaves open the possibility that these could be routing free product to PC-03.

The free product in well PC-03 could also be from an on-site source, such as an unknown, unregistered UST or a discharge of petroleum on the ground surface. Tetra Tech oversaw a geophysical survey of the site in September 2020, which did not reveal the presence of a UST. It should be noted that the southern and western portions on the site were inaccessible at that time due to staged equipment and discarded materials. This prevented a thorough assessment of the area and created a data gap of subsurface conditions and features. Due to the lack of accessibility in this area, the presence of a UST or other source cannot be ruled out on the Pac Comm property. The fact that fingerprinting of free product from PC-03 showed that it was comprised of a mixture of products (*i.e.* not from a single source), and the fact that no free product was observed in well PC-04 casts doubt on the source of the free product being on the

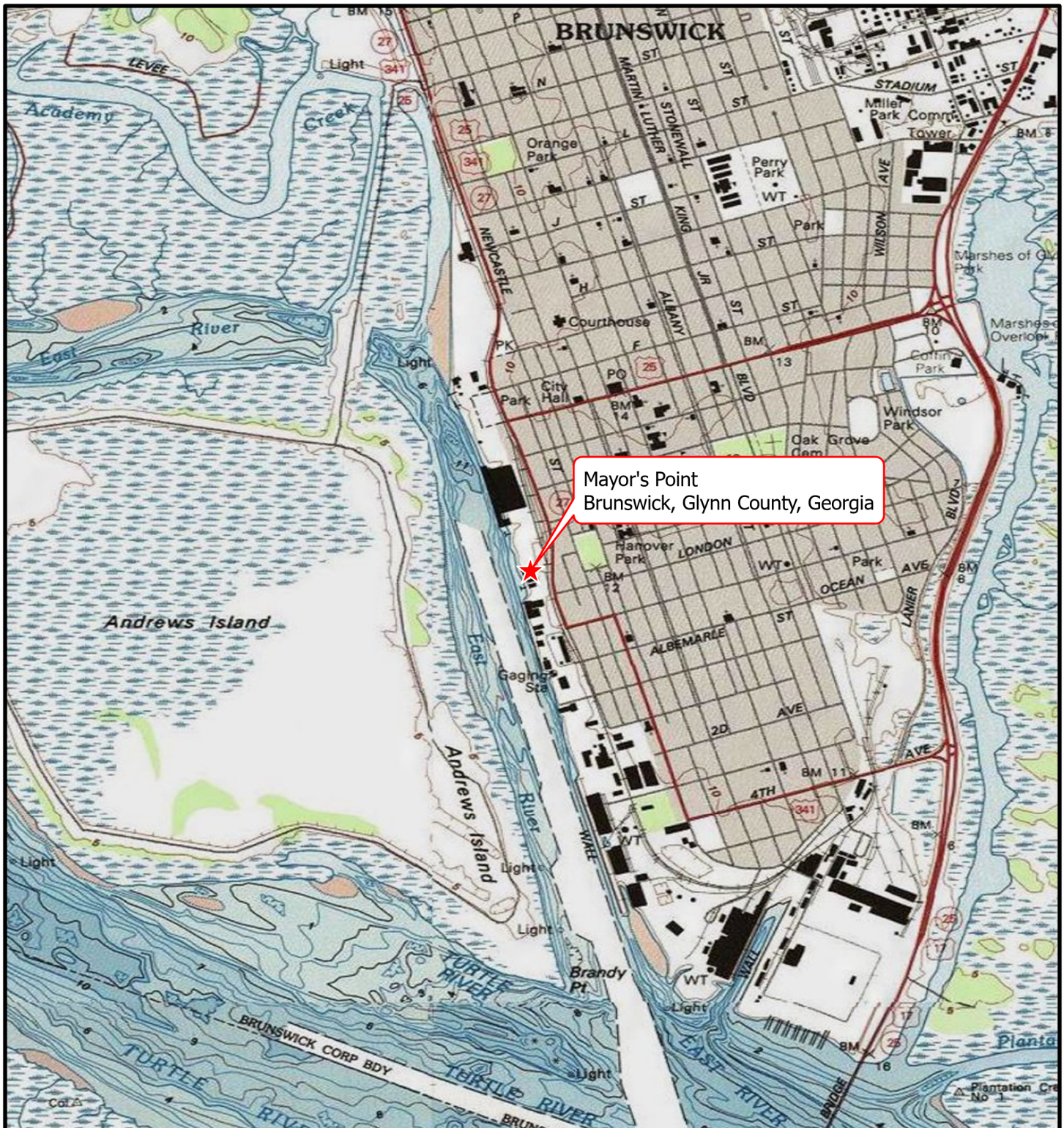
Pac Comm property. However, further investigation will likely be needed to conclusively identify the free product source in PC-03.

ENCLOSURE 1

FIGURES

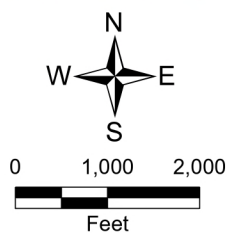
(Eleven Pages)





Legend

★ Site Location



Map Source:
USGS 7.5 Minute Topographic Quadrangle Maps:
Brunswick East, GA 1980 and Brunswick West, GA 1980.



FIGURE 1

Site Location

Site Name: Mayor's Point

City:
Brunswick

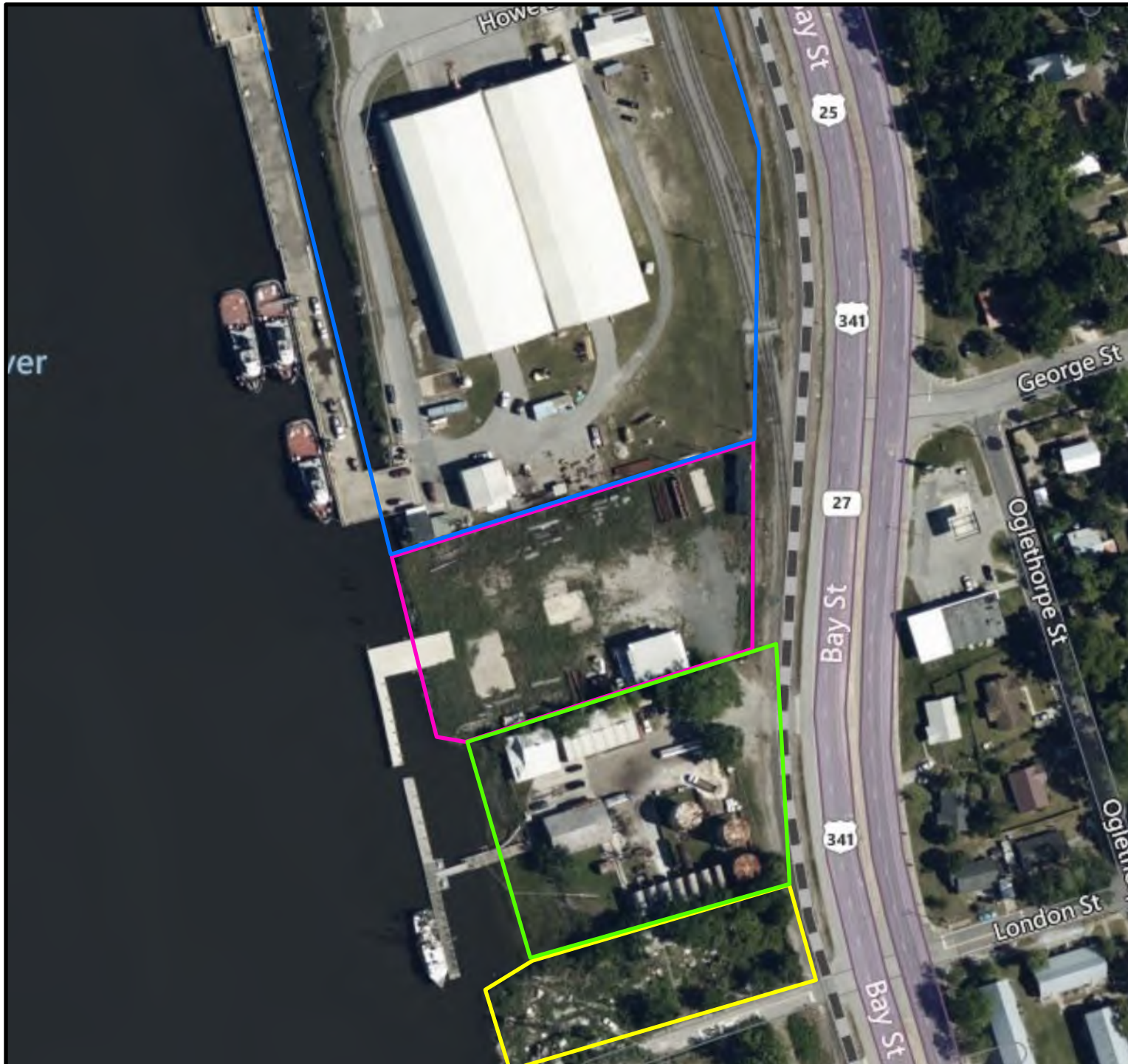
County:
Glynn

State:
Georgia



TETRA TECH

Date:
10/2/2020
Analyst:
GREG DOCEKAL



Legend

- Georgia Port Authority
- Ocean Petroleum
- Pac Comm
- Scott and Sons



0 0.5 1 2
Miles

Map Source: Bing Maps Hybrid

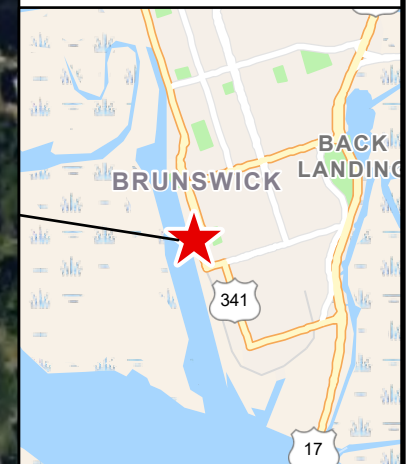


FIGURE 2

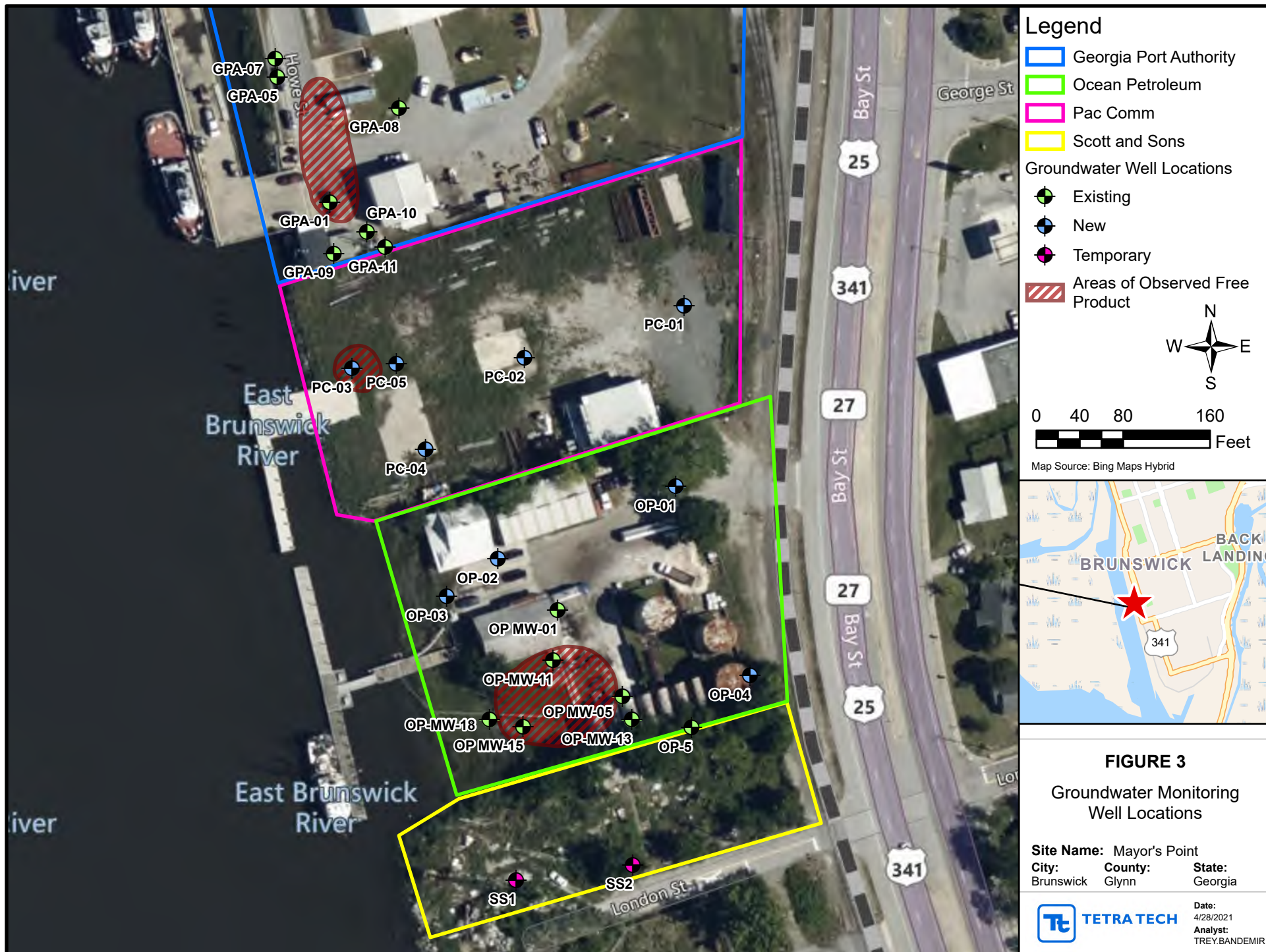
Site Layout

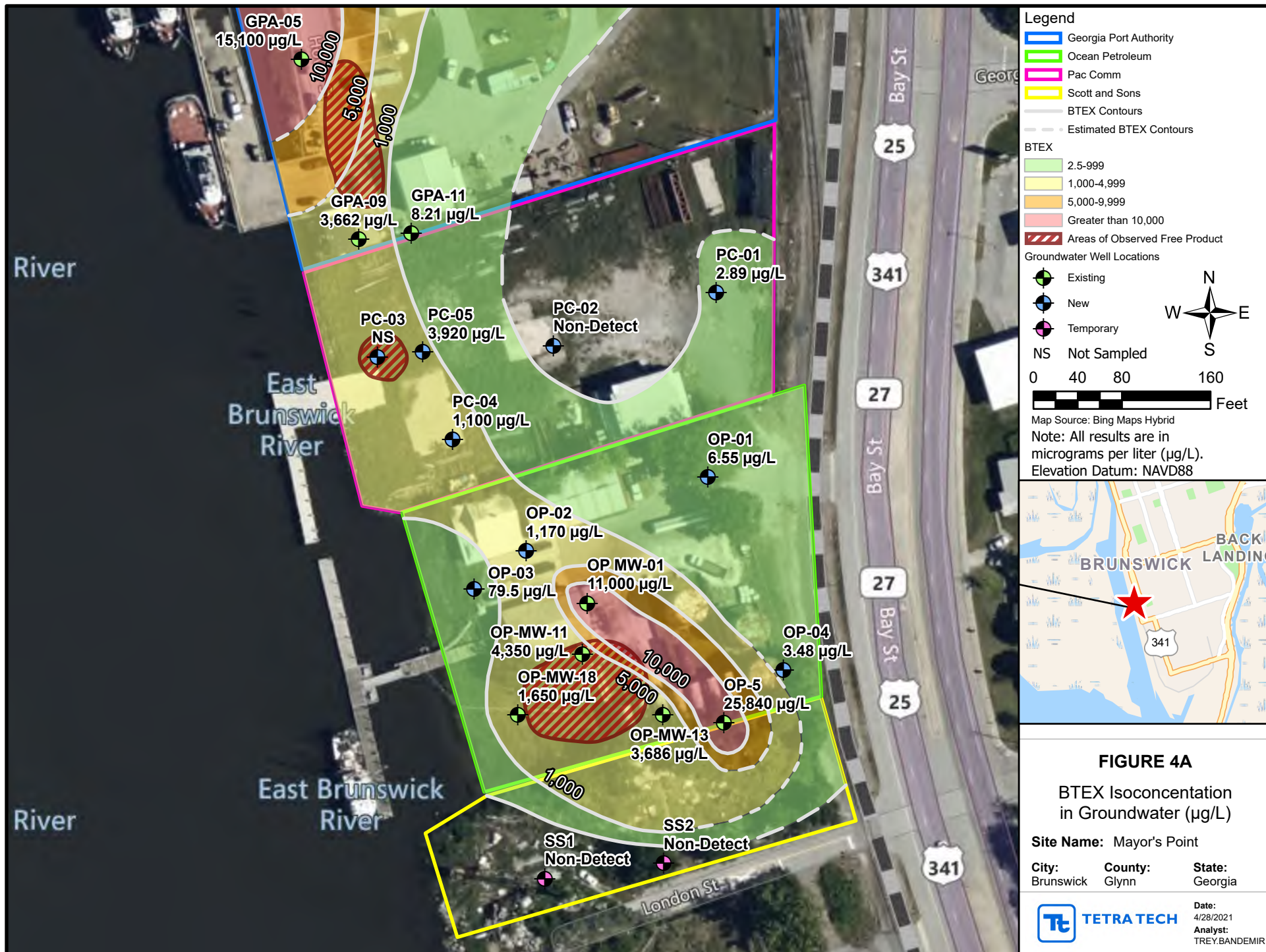
Site Name: Mayor's Point

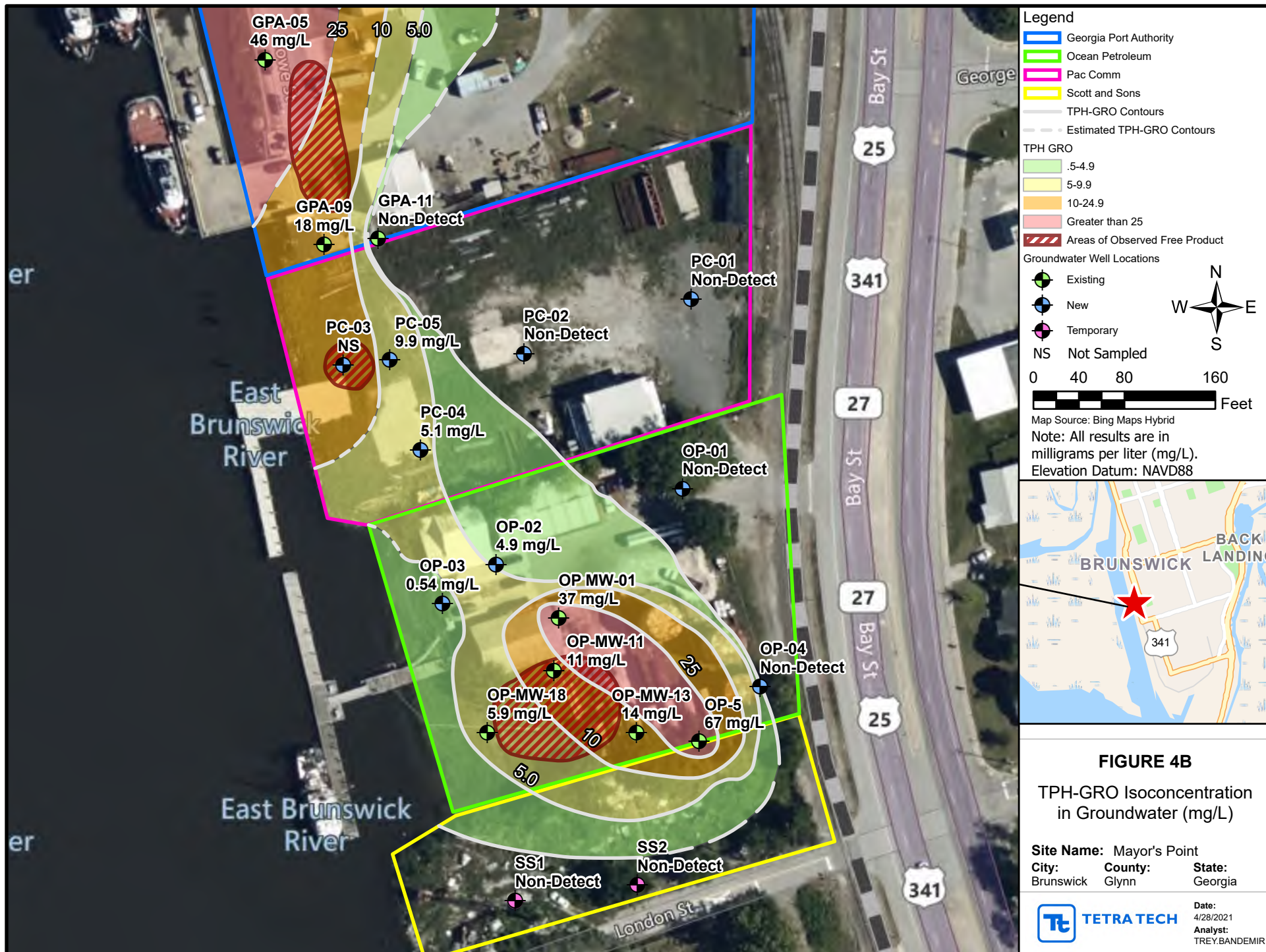
City: Brunswick County: Glynn State: Georgia



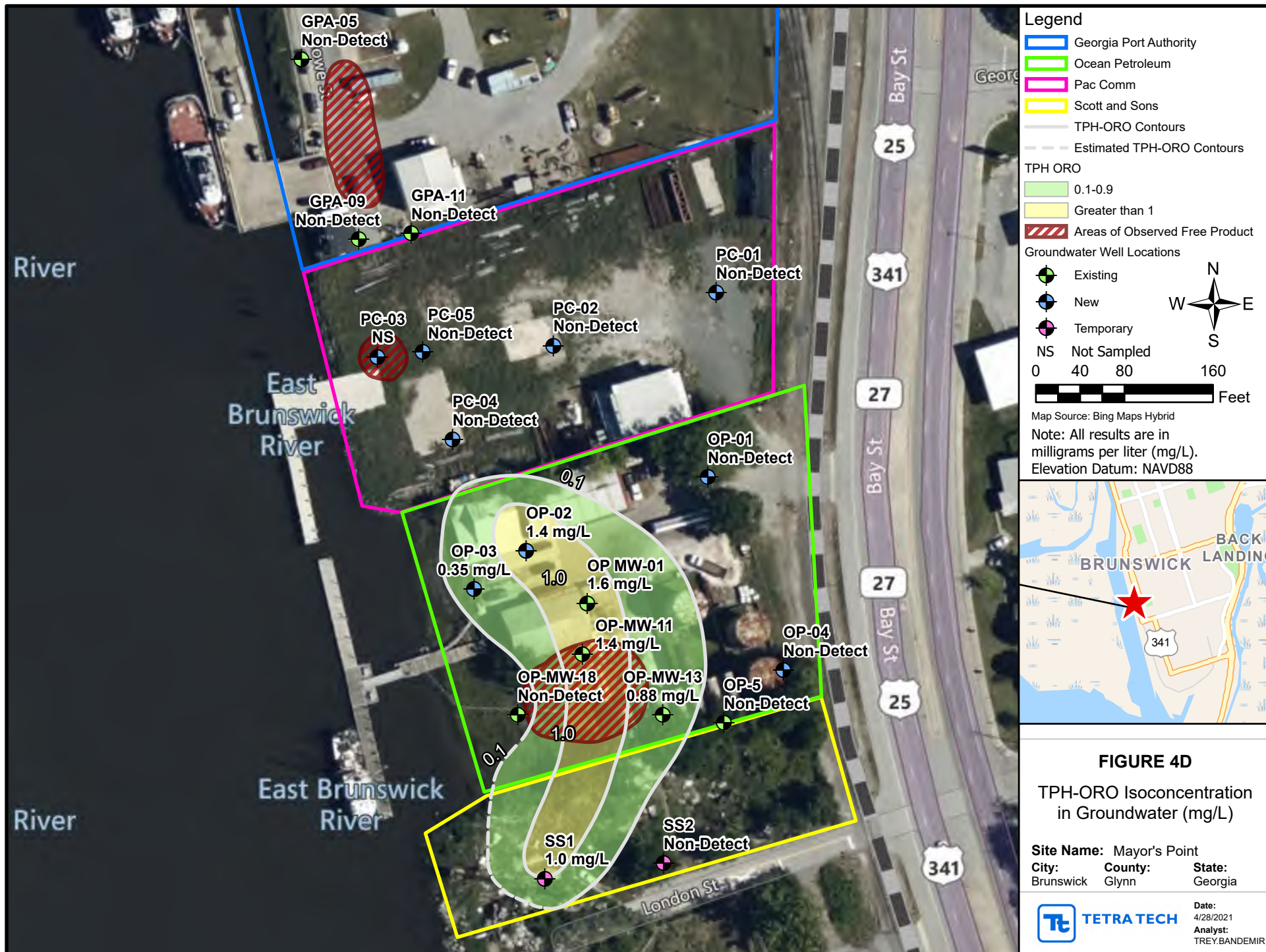
Date:
4/14/2021
Analyst:
TREY.BANDEMIR

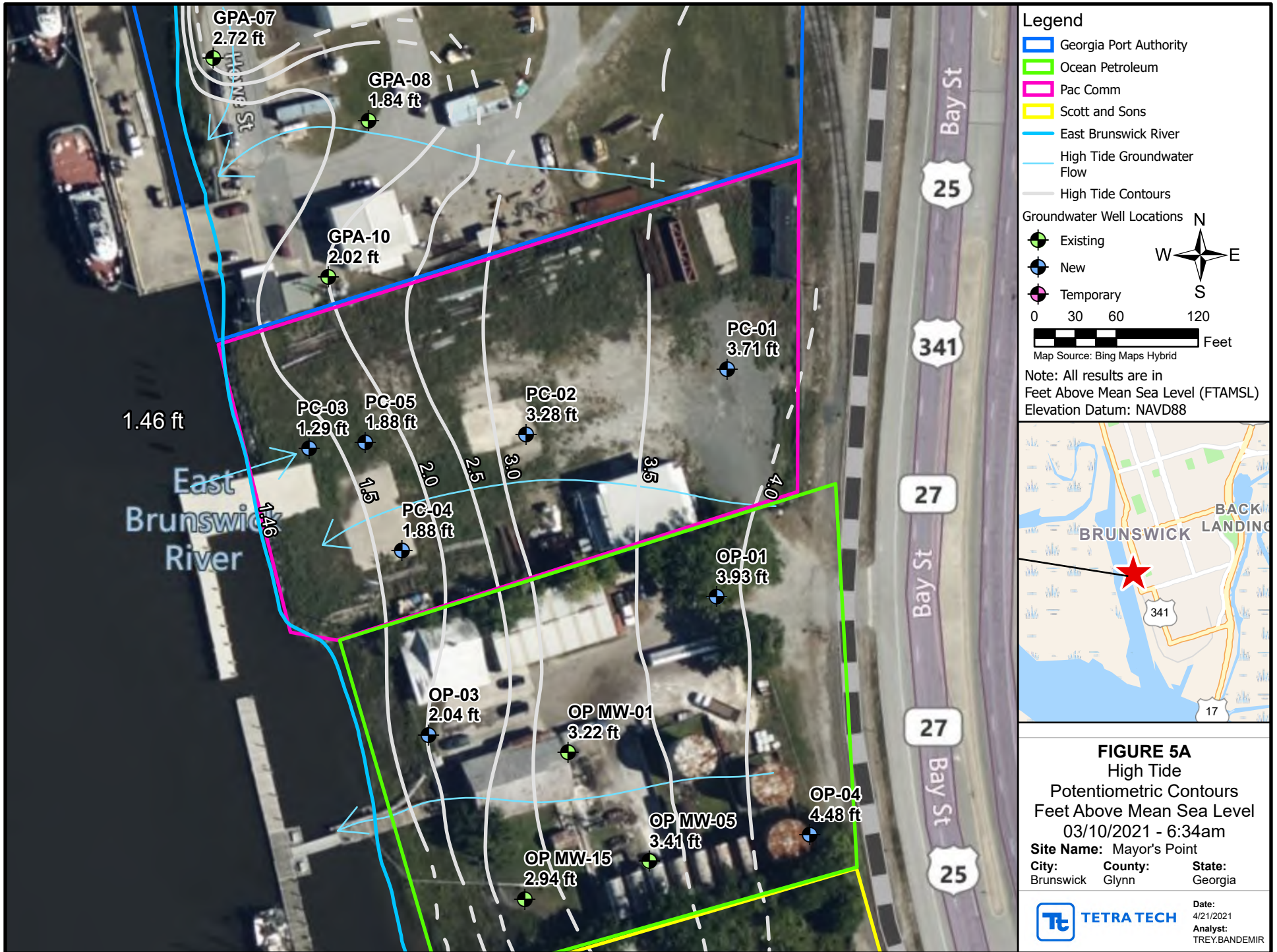


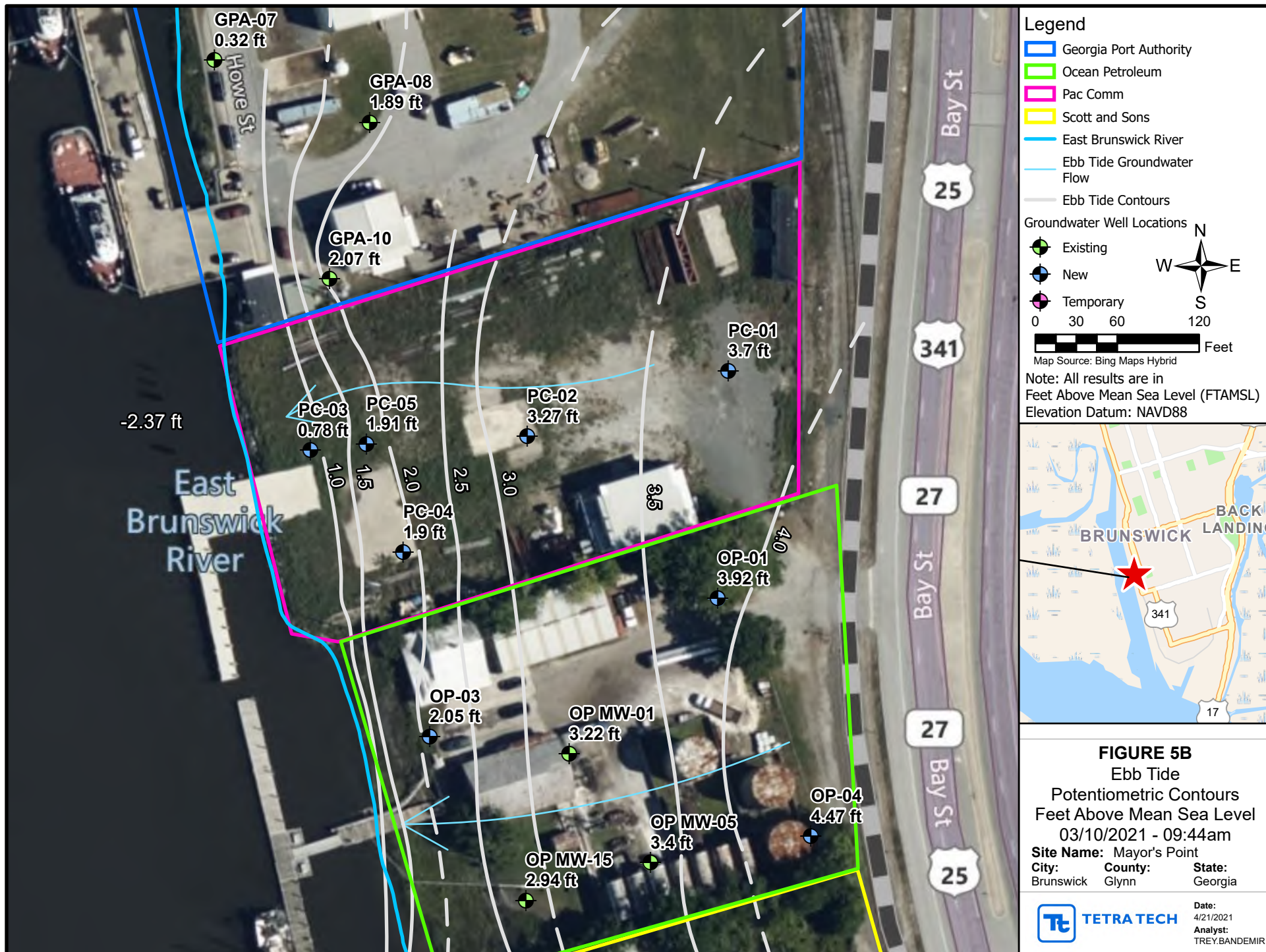


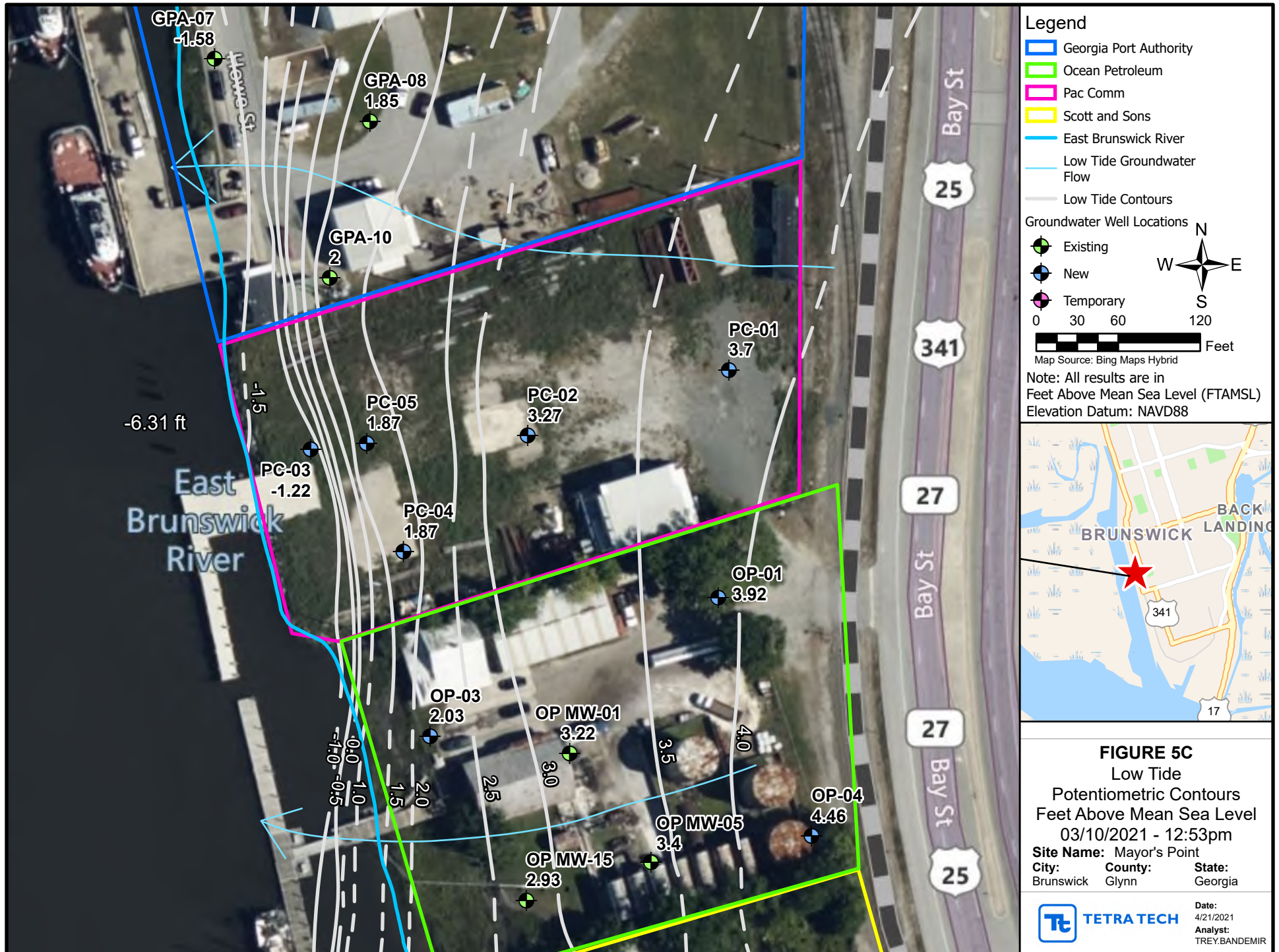


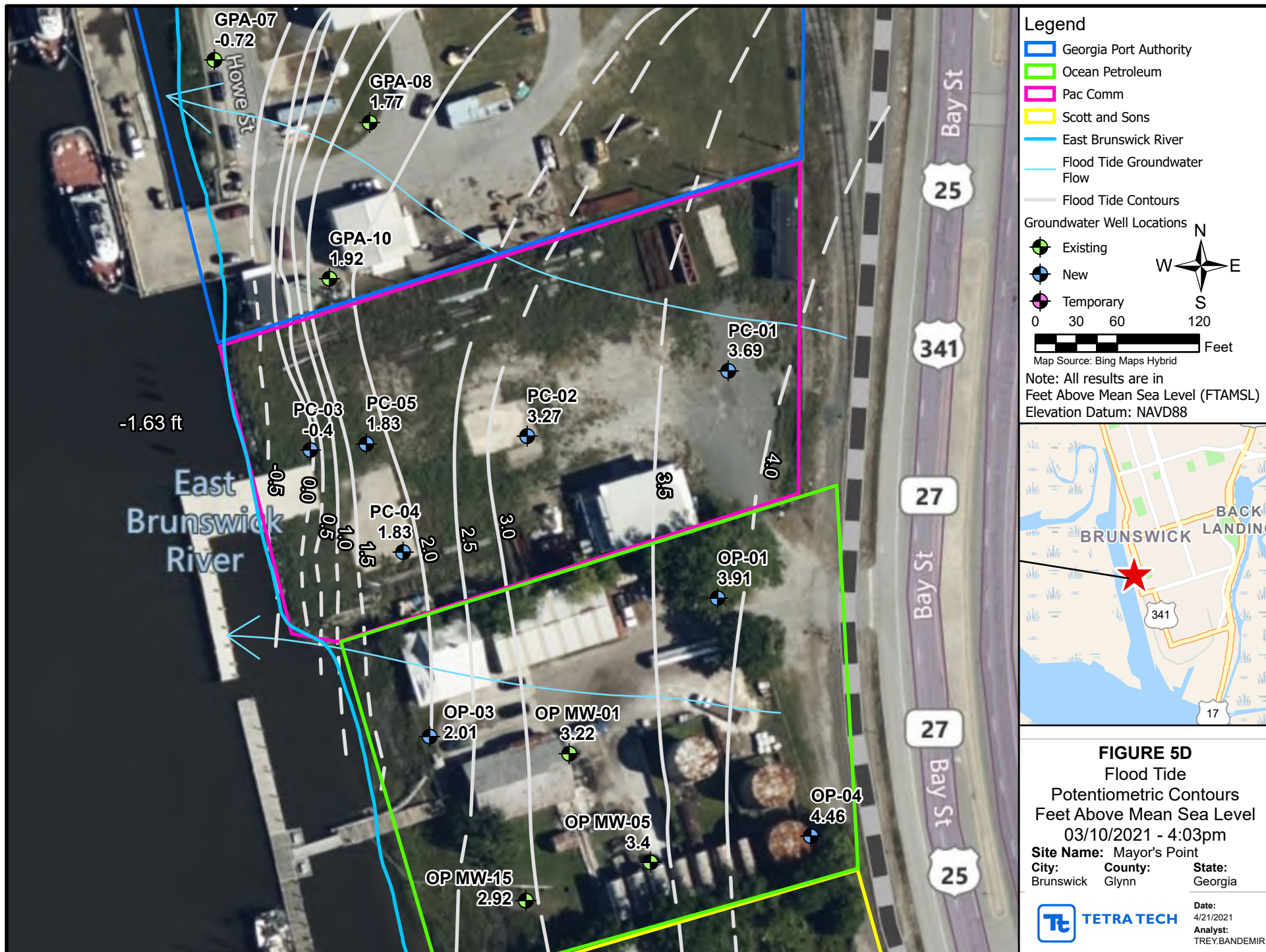












ENCLOSURE 2

LOGBOOK NOTES AND FIELD FORM DATA

(32 Sheets)



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SINCE 1916

3 sampled
9 water



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Tetra Tech



TETRA TECH

John Snyder, PE PG
Environmental Engineer

Tetra Tech

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john.snyder@tetrattech.com tetrattech.com

Phone

Project



RiteintheRain.com

CONTENTS

9/21/2020

1730 - Meet off site w/ Resolve
Joseph, Geolch, + GEL to
discuss H+S, logistics, etc

1800 - On site to meet w/ USCG
+ begin planning / site walk,
- Lay out boring locations A1 thru C3
for GPR to clear.

1820 - Protect on site (OIP sub)

1830 - Sheen observed along river front,
southern portion of site
Resolve screens - 10% LEL

1900 - Geolch begins boring A-1
A1 spiked @ 7.25' bgs @ 29.2%

2000 - Begin boring A-2
- total depth = 12' bgs No spikes

2120 - Begin boring B-2
spike @ 3.35' @ 7.3%

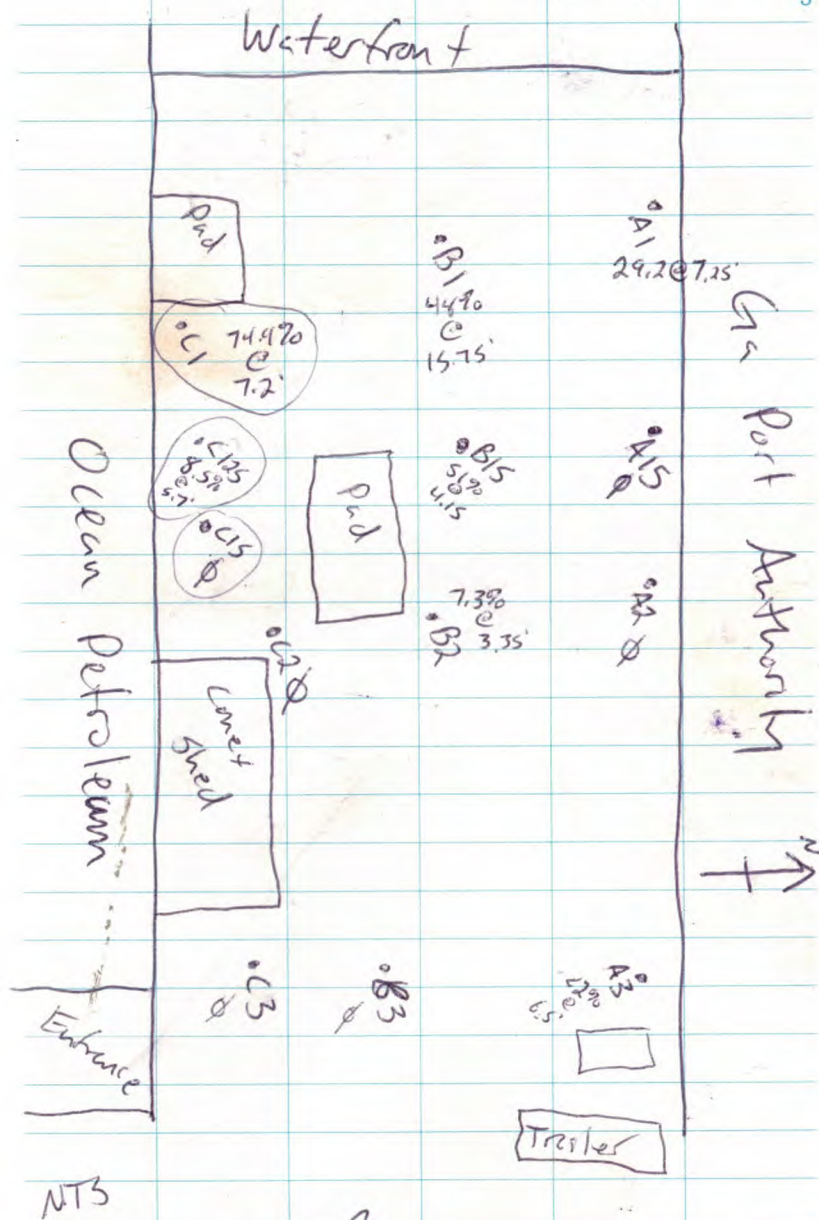
2140 - Setup on C2
No spikes to 12' bgs

2210 - Set up on C1
spike @ 74.4% @ 7.2'

2235 - Move to B1
48% @ 17.5' 15.75'

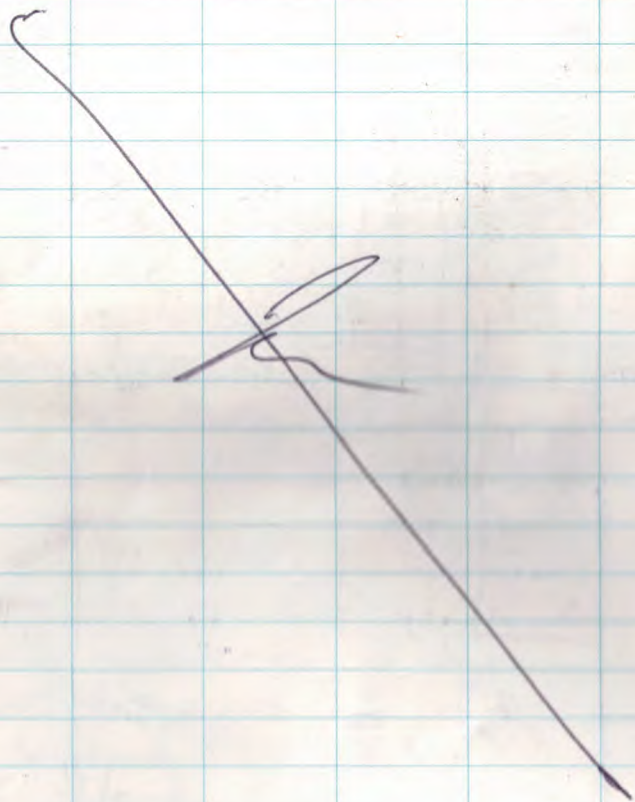
2300 - Set up on C3
No spikes down to 12'

[Signature]



9/21/2020 cont'd

- 2315 - GEL off site
 2320 - Setup on B-3
 No spikes down to 10.8'
 2015 - All off site



9/22/2020

- 1730 - T+ Snyder, Resolve, Geolab, +
 ProTech meet off site to discuss
 ops + H+S for the day
 1800 - All on site to resume OIP
 work
 1810 - ProTech/Geolab setting up
 OIP Equipment.
 - Resolve procured plumber to
 snake mystery pipe in shoreline
 1845 - Setup on A-3
 small spike (42% @ 6.5')
 1905 - Setup on C-15
 - refusal @ ~9.5'. No spikes noted
 1935 - Setup on C-12S
 spike 8.5% @ 5.7'
 2005 - Setup on B-15
 - spike 51% @ 4.15'
 - glass shattered, will redo
 2200 - Still troubleshooting OIP,
 will collect soil samples
 2210 - Collect PC-SB-C3 from 7-8'
 2220 - Collect PC-SB-C1 from 7-8'
 - Duplicate sample collected by USCG
 2325 - Redrill B-15 (B-15B)
 spike 29.4% @ 5.75' bgs

Borehole Coordinates 9/22/2020 *mtu*

-collected w/ Trimble GeoExplorer 6000

Pine inventory 32861

Pressure ~ 3.8 ft to 30" Georgia East

Boring	Northing (Feet)	Eastng (Feet)	Alt (NAE, ft)
B2	416262.55	866045.19	-93.90
A1	416300.83	865943.09	-92.74
A2	416319.90	866028.79	-91.94
B1	416253.87	865946.43	-96.26
A3	416363.61	866153.55	-90.26
B3	416286.43	866159.72	-93.29
C3	416237.11	866157.14	-92.99
C1	416179.15	865989.38	-91.81
C125	416185.56	866009.03	-93.41
C15	416186.80	866026.84	-91.13
C2	416219.79	866065.04	-94.29
B15	416260.43	865994.78	-91.74
A15	416317.04	865982.55	-87.02

2355 - Set up on A-15

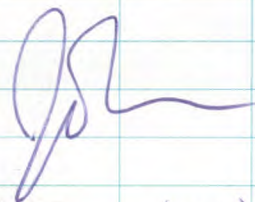
- no spikes observed

20015 - Packed up equipment

0055 - All off site



End of
field work



9/23/20

1/21/21

- 1000 - Back on site for additional phase of work.
- Sitewalk of Ocean Petroleum, PacComm, + Mayors Point GPA
 - Resolve EPA, USCG, GaDNR, + Ocean Petro.
- 1200 - All off site



3/8/21

- 1715 - On site (Snyder) @ Texaco property w/ Jozef + GPRS to begin screening boring locations
- 1800 - Onto PacComm site
- H+S trilsite
- 1820 - H+S finished
- GeoLab setting up on PC-1
- 1910 - Collect PC1-SB from 6-7' bgs
- 1940 - Setup on PC2
- 2010 - Collect PC2-SB from 4-5' bgs
- 2030 - Setup on PC3 (north of dock ramp)
- 2125 - Collect PC3-SB from 5-6' bgs
- 2140 - Setup on PC4 (sw corner)
- 2230 - Collect PC4-SB from 5-6' bgs
- 2300 - Well install complete. GeoLab finishing peds. Will develop well w/ 2-stage pump.
- 2330 - Finish developing PC1
- 2345 - Begin purging PC2
- 2355 - Finish purging PC2
- 3/9/21
- 0010 - Begin purging PC3
- 0050 - Finished purging PC3
- 0055 - Begin purging PC4
- 0110 - Finished purging PC4

3/9/21 cont'd

0220 - All off site. Pads completed

1700 - TF Snyder + Montbriquet
on site w/ EPA, Resolve, +
Geolab

1725 - H+S tailgate @ Scott + Sons

1750 - Drill grab sample well to 9'
bgs @ SS1

1800 - Begin parging SS1

1815 - Collect SS1 - GW

1820 - Drill grab sample to 9' bgs
@ SS2.

1825 - Begin parging SS2 w/ per pump

1835 - Collect SS2 - GW

1915 - Setup on OP1 (NE corner of
Ocean Petroleum)

1930 - Collect OP1 - SB from 4-5' bgs

1950 - Set up on OP2, central PacComm
property line

2015 - Collect OP2 - SB from 1-2' bgs

2055 - Collect OP3 - SB from 2-3' bgs

* 2020 - Collect OPS - GW from 1" PVC on
south side of site

2155 - Collect OP4 - SB from 6-7' bgs

for

3/9/21 cont'd

2235 - To GPA to install trolls
3/10/210000 - Decision made to add
a fifth well on PacComm (PC5)
- Hand auger down to clear
area0100 - Geolab begins developing
wells on Ocean Petroleum

0230 - Move back to PacComm

0255 - Collect PC5 - SB from 5-6' bgs

0300 - Collect PC5 - SB - DUP

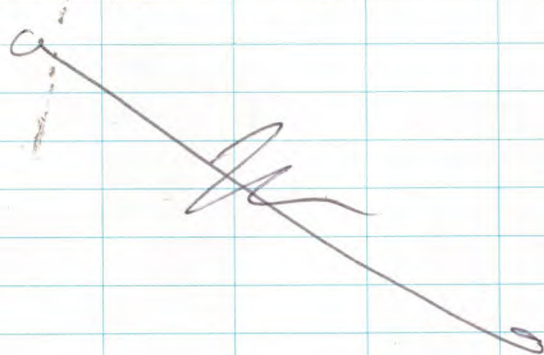
0400 - Drillers finish out pad on
PCOS

0410 - Begin developing PCOS

0420 - Finished developing

0440 - Dismantle + label IDW

0500 - TF off site



Summary of Troll Installs

Well	Troll #
GPA08	799166
GPA10	776813
GPA07	777360
GPA06	797236
OP15	473589
OP05	599481
OP01	445815
OP03	599894
OP01 New	599885
OP04 New	629717
PC01	776238
PC02	469256
PC03	599900
PC04	630477
PC05	599475

3/10/21 cont'd

1800 - T+ LM+ JS on site

H+S tailgate

Property	Well	Depth to product	Depth to water	LNAPL data	troll	troll depth
OP	OP4 new	-	3.46	✓		
	Shedup(OP5)	-	5.35	N/A		
	MW13	-	4.03	N/A		
	MW12	-	3.80	N/A		
LM	MW6 AAW9	3.75	3.93	N/A		
	MW7	-	3.14	N/A		
	MW8	3.83	4.13	N/A		
	MW9 MW6 LM	3.44	3.76	N/A		
	MW15	2.86	2.93	✓		3.08/17
	MW4	4.35	4.57	N/A		
	MW5	4.1m	4.65	✓		4.98
	MW16	2.4m	2.44	NA		
	MW3	3.22	3.50	NA		
	MW2	4.85	4.86	NA		
	MW11	4.02	4.32	NA		
	MW10	3.32	3.60	NA		
	MW01	-	4.97	✓		4.97
Outside N	MW14	-	4.20	NA		
Outside S			4.32	NA		
	OP3		2.90	✓		2.21
	OP2		3.92	NA		
	OP1		4.22	✓		3.17

Rate in Rain

	Well	DTP	DTW	LNAPL Troll	Troll depth
	CP01	—	5.75	✓	4.09
	CP02	—	4.28	✓	2.73
	CP04	—	5.24	✓	4.67
	CP03	—	6.15	✓	5.21
	CP05	—	5.28	✓	4.51
GPA	GPA08	—	5.30	✓	5.45
	GPA04	—	4.89	N/A	—
	GPA12	—	5.18	N/A	—
	GPA11	—	5.27	N/A	—
	GPA10	—	5.30	✓	5.27
	GPA01	—	4.06	NA	—
	GPA9	—	4.50	NA	—
	GPA2	4.68	4.70	NA	—
	GPA1	4.30	4.35	NA	—
	GPA06	—	6.10	✓	8.42 ^{was corrected}
	GPA02	—	4.37	N/A	—
	GPA03	4.74	4.76	N/A	—
	GPA05	—	3.12	N/A	—
	GPA06	—	3.97	N/A	—
	GPA07	—	3.35	✓	2.77

2010- All off site

3/11/21

1800 - All on site. H+S brief

1810 - Walk site w/ surveyors to show what needs surveying

1850 - Calibrate Pore Probe U-52 #24750

Lot # 20070289, pass for pH, turb, conc

1855 - Begin sampling, see following pages

2140 - Pull fingerprint sample from

GPA01

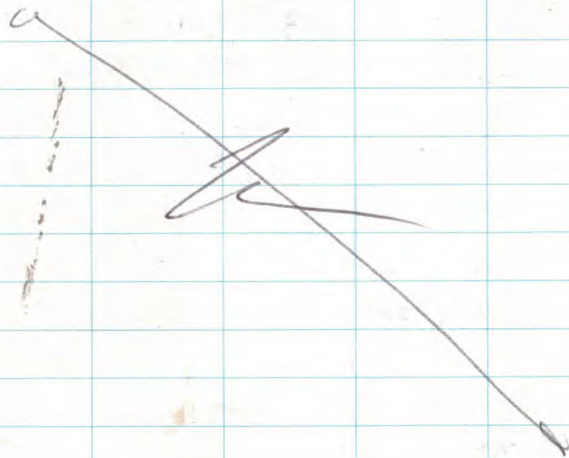
2255 - Pull all trolls from GPA

2305 - Set up on PadCann

3/12/21

0115 - Move to Ocean Petroleum

0345 - Sampling complete, all off site



3/11/21

Monitoring Well
Sampler
Total Well Depth (ft)
Depth to Water (ft)
Water Column
Well Diameter (in)
Well Volume (gal)
Purge START/END
Purged Volume
Pump Type
TIME
Volume Purged (gal)
Water level (ft)
pH
Conductivity (uS/cm)
Temperature (°C)
Turbidity (NTUs)
DO (mg/L)
ORP (mV)
Sample Time/Date
Sample NAME

OP02

Snyder

14.10

3.95

10.15

2

1.65

1900/1915

1.5

Peri

1905 1910 1915 1920

1/2 1.0 1.5

4.29 4.52 4.64

6.64 6.66 6.60

1310 1310 1370

22.84 22.89 22.95

0.0 0.0 0.0

0.00 0.00 0.00

-108 -122 -129

1920 3/11/21

OP02-GW

MW-11

Snyder

6.37

4.05

2.32

2

0.38

1934/1955

2.0

Peri

1940 1945 1950 1955

1/2 1 1.5 2.0

4.51 4.52 4.25 4.15

6.01 6.02 6.05 6.01

1790 1980 2150 1990

19.73 19.35 19.20 19.14

0.0 0.0 0.0 0.0

0.00 0.00 0.0 0.00

-91 -107 -115 -112

1955 3/11/21

MW11-GW

Notes:

Product @

3.88 to 3.95

Product @

4.05 to 4.56

3/11/21

MW-13	MW-18 Santa Marsh
Snyder	Snyder
8.32	10.55
4.01	4.37
4.31	6.18
2	2
0.7	1.0
2007/2020	2039/2050
2.0	1.5
Peri 3hr	Peri 3hr
2010 2013 2016 2020 2042 2045 2048 2050	2010 2013 2016 2020 2042 2045 2048 2050
0.5 1.0 1.5 2.0 0.5 1.0 1.5	0.5 1.0 1.5 2.0 0.5 1.0 1.5
5.63 5.73 5.60 5.57 4.38 4.39 4.42	5.63 5.73 5.60 5.57 4.38 4.39 4.42
6.68 6.65 6.65 6.64 6.88 6.92 6.90	6.68 6.65 6.65 6.64 6.88 6.92 6.90
1310 1320 1320 1316 29,400 26,400 24,900	1310 1320 1320 1316 29,400 26,400 24,900
16.27 15.97 15.95 15.86 16.22 15.88 15.79	16.27 15.97 15.95 15.86 16.22 15.88 15.79
16.9 31.1 32.2 23.9 55.3 18.6 6.6	16.9 31.1 32.2 23.9 55.3 18.6 6.6
0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00
-103 -115 -118 -121 -328 -344 -353	-103 -115 -118 -121 -328 -344 -353
2020 3/11/21	2050 3/11/21
MW13-GW	MW18-GW

3/11/21

Monitoring Well	GPA09								GPA11							
Sampler	Snyder								Snyder							
Total Well Depth (ft)	11.42								12.00							
Depth to Water (ft)	4.57								5.32							
Water Column	6.85								6.68							
Well Diameter (in)	2								2							
Well Volume (gal)	1.12								1.09							
Purge START/END	2115/2130								2145/2157							
Purged Volume	2.0								2.0							
Pump Type	peristaltic								peristaltic							
TIME	2118	2121	2125	2130	2148	2151	2154	2157	2148	2151	2154	2157				
Volume Purged (gal)	0.5	1.0	1.5	2.0	0.5	1.0	1.5	2.0	0.5	1.0	1.5	2.0				
Water level (ft)	4.60	4.57	4.63	4.61	5.35	5.38	5.31	5.32	5.35	5.38	5.31	5.32				
pH	7.29	7.12	7.11	7.09	9.07	7.55	7.53	7.48	7.55	7.53	7.53	7.48				
Conductivity (uS/cm)	680	564	556	558	686	684	683	684	684	683	683	684				
Temperature (°C)	17.05	17.07	17.06	17.05	16.77	17.06	17.40	17.49	17.06	17.40	17.40	17.49				
Turbidity (NTUs)	46.8	61.8	70.8	63.8	84.5	115	67.7	45.7	115	67.7	67.7	45.7				
DO (mg/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
ORP (mV)	-322	-323	-325	-326	-231	-231	-232	-232	-231	-231	-232	-232				
Sample Time/Date	2130 3/11								2200 3/11							
Sample NAME	GPA09-GW								GPA11-GW							

Notes:

GPA05								PC01							
Snyder								Snyder							
13.00								14.20							
4.42								5.80							
8.58								8.40							
2								2							
1.40								1.37							
2215/2227								2313/2325							
2.0								2.0							
peristaltic								peristaltic							
2218	2221	2224	2227	2315	2318	2321	2325	2218	2221	2224	2227	2315	2318	2321	2325
0.5	1.0	1.5	2.0	0.5	1.0	1.5	2.0	0.5	1.0	1.5	2.0	0.5	1.0	1.5	2.0
4.70	4.77	4.82	4.85	5.81	5.85	5.83	5.83	4.70	4.77	4.82	4.85	5.81	5.85	5.83	5.83
6.71	6.77	6.81	6.82	8.41	7.79	7.64	7.63	6.71	6.77	6.81	6.82	8.41	7.79	7.64	7.63
18,400	18,400	18,300	18,300	575	405	397	3.95	18,400	18,400	18,300	18,300	575	405	397	3.95
19.52	19.32	19.30	19.30	16.97	17.42	17.60	17.74	19.52	19.32	19.30	19.30	16.97	17.42	17.60	17.74
19.3	5.1	0.0	0.0	13.3	66.3	48.9	49.3	19.3	5.1	0.0	0.0	13.3	66.3	48.9	49.3
0.00	0.00	0.00	0.00	3.52	3.44	3.33	3.41	0.00	0.00	0.00	0.00	3.52	3.44	3.33	3.41
-345	-350	-356	-357	-193	-167	-153	-13	-345	-350	-356	-357	-193	-167	-153	-13
2230 3/11								2325 3/11							
GPA05-GW								PC01-GW							

3/11/21 → 3/12/21

Monitoring Well	PC02				PC04			
Sampler	Snyder				Snyder			
Total Well Depth (ft)	13.70				14.00			
Depth to Water (ft)	4.32				5.31			
Water Column	9.38				8.69			
Well Diameter (in)	2				2			
Well Volume (gal)	1.53				1.42			
Purge START/END	2340/2353				0012/0025			
Purged Volume	2.0				2.0			
Pump Type	peristaltic				peristaltic			
TIME	2343	2346	2350	2353	0015	0018	0021	0025
Volume Purged (gal)	0.5	1.0	1.5	2.0	0.5	1.0	1.5	2.0
Water level (ft)	4.42	4.43	4.43	4.43	5.31	5.31	5.31	5.31
pH	7.11	6.91	6.78	6.74	6.81	6.83	6.86	6.88
Conductivity (uS/cm)	360	346	342	339	19900	21900	21500	21300
Temperature (°C)	20.02	20.40	20.43	20.45	18.82	19.06	19.35	19.53
Turbidity (NTUs)	0.9	1.7	0.0	0.0	42.9	36.5	15.4	9.4
DO (mg/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ORP (mV)	-84	-76	-78	-78	-335	-365	-365	-368
Sample Time/Date	2355 3/11/21				0025 3/12			
Sample NAME	PC02-GW				PC04-GW			

Notes:

3/12/21

PC05	PC03			
Snyder	Snyder			
14.00	14.00			
5.32				
8.68				
2				
1.42				
0042/0056				
2.0				
peristaltic				
0045	0048	0052	0056	too much
0.5	1.0	1.5	2.0	product to
5.40	5.31	5.45	5.41	collect GW
7.15	7.56	7.07	7.02	sample
5,110	4,930	4,460	4,020	
19.72	19.85	19.67	19.49	
0.6	0.0	0.0	0.0	Product sample
0.00	0.00	0.00	0.00	only
-241	-247	-256	-262	
0100	3/12			0115 3/12
PC05 - GW				PC03 - GW

Product from
7.20' to 11.70'

3/12/21

Monitoring Well	OP04				OP01			
Sampler	Snyder				Snyder			
Total Well Depth (ft)	14.00				14.00			
Depth to Water (ft)	3.51				5.25			
Water Column	8.49 10.49				8.75			
Well Diameter (in)	2				2			
Well Volume (gal)	1.38 1.71				1.43			
Purge START/END	132/145				157/209			
Purged Volume	2.0				2.5			
Pump Type	Peristaltic				peristaltic			
TIME	135	138	142	145	200	203	206	209
Volume Purged (gal)	0.5	1.0	1.5	2.0	1.0	1.5	2.0	2.5
Water level (ft)	3.57	3.59	3.62	3.73	4.27	4.30	4.32	4.32
pH	8.07	7.47	7.43	7.47	6.91	6.89	6.86	6.82
Conductivity (uS/cm)	480	452	436	433	253	247	242	236
Temperature (°C)	17.07	17.28	17.49	17.48	17.56	17.59	17.58	17.63
Turbidity (NTUs)	8.7	6.0	4.2	0.8	27.3	24.9	25.7	19.7
DO (mg/L)	1.51	0.92	0.61	0.59	0.18	0.10	0.00	0.00
ORP (mV)	-92	-83	-72	-67	-17	-17	-18	-20
Sample Time/Date	145 3/12				210 3/12			
Sample NAME	OP04-GW				OP01-GW			

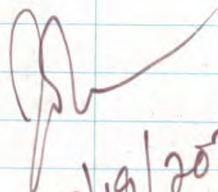
Notes:

3/12/21

OP03				MW-01			
Sampler				Sampler			
14.00				9.25			
2.96				5.00			
11.04				4.25			
2				2			
1.80				0.69			
223/235				257/309			
2.0				2.0			
peristaltic				peristaltic			
226	229	232	235	300	303	306	309
0.5	1.0	1.5	2.0	0.5	1.0	1.5	2.0
3.15	3.23	3.19	3.15	5.06	5.01	5.02	5.04
6.81	6.84	6.84	6.85	7.68	7.21	7.07	7.01
179	178	178	180	1630	1420	1350	1320
18.53	18.95	18.94	18.96	16.36	16.19	16.14	16.15
0.0	0.0	0.0	0.0	6.6	0.0	0.0	0.0
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-350	-359	-359	-359	-226	-223	-225	-227
235 3/12				310 3/12			
OP03-GW				MW01-GW			

MW01-GW-DUP @
315

End of
field work


3/19/2021

PROJECT: Mayors Pt
SITE:
BORING ID: PC-1

MW ID:

DATE: 3/8/21
LOGGED BY: JWS

Page 1 of 1

Sampler Type/Interval	Time	Recovered/Driven (in./in.)	Pocket Penetrometer (ton/ft ²)	PID Reading (ppm)	Depth (feet bgs)	Lithologic Unit	USCS Type/Designation	Soil Description
	10:15			0.4	0			Crush + run
				0.0	1			disturbed gravelly, dark gray
		6 1/2		0.0	2			sand
				0.0	3			Light brown sand
				0.0	4			
				0.0	5			moist, dark brown sand
				0.0	6			moist, dark brown sand
		6 1/2		0.0	7			
				0.0	8			
				0.0	9			Saturated brown sand
				0.0	10			
					11			
					12			
					13			
					14			
					15			
					16			
					17			
					18			
					19			
					20			
					21			
					22			
					23			
					24			
					25			

PC1-SB@
1910

OPT

PROJECT: Mayors Pant
SITE:
BORING ID: PC-2

MW ID:

DATE: 3/8/21
LOGGED BY: JWS

Page 1 of 1

Sampler Type/Interval	Time	Recovered/Driven (in./in.)	Pocket Penetrometer (tons/ft.)	PID Reading (ppm)	Depth (feet bgs)	Lithologic Unit	USCS Type/Designation	Soil Description
	1940			0.0	0			Concrete
				0.0	1			gravel fill
		60/6		0.0	2			Dark brown dry clay w/ rubble
				0.0	3			Dry brown sand,
				0.0	4			med-grm
				0.0	5			Moist brown sand, med-grm
				0.0	6			Wet brown med-grm sand
		60/6		0.0	7			
				0.0	8			Dark gray clay, subdrctd
				0.0	9			subdrctd brown med-grm
				0.0	10			sand
					11			
					12			
					13			
					14			
					15			
					16			
					17			
					18			
					19			
					20			
					21			
					22			
					23			
					24			
					25			

PC2-SB @
2010

DPT

14-4
2.5 1.5

PROJECT: Mayors Point
SITE:
BORING ID: PC3

MW ID:

DATE: 3/8
LOGGED BY: JUS

Page 1 of 1

Sampler Type/Interval	Time	Recovered/Driven (in./in.)	Pocket Penetrometer (tons/in. ²)	PID Reading (ppm)	Depth (feet bgs)	Lithologic Unit	USCS Type/Designation	Soil Description
	3050			0.4	0			<u>Loamy dark sand w/ organics</u>
				3.2	1			<u>Dark gray/black mottled gravelly sand</u>
		6.5/60		111.1	2			<u>SAA</u>
				543	3			
				1212	4			<u>Saturated, gray sand w/ odor</u>
				1356	5			<u>med-grained</u>
				915	6			<u>SAA</u>
		6.0/60		853	7			
				1082	8			<u>Black, saturated, fine-grained sand w/ odor</u>
				1153	9			<u>saturated, gray sand w/ odor</u>
					10			
					11			
					12			
					13			
					14			
					15			
					16			
					17			
					18			
					19			
					20			
					21			
					22			
					23			
					24			
					25			

PC3-SB @
2125

PROJECT: PC4
SITE: Mayors Point
BORING ID: PC4

MW ID: PC4

DATE: 3/8
LOGGED BY: JWS

Page 1 of 1

Sampler Type/Interval	Time	Recovered/Driven (in./in.)	Pocket Penetrometer (tons/ft ²)	PID Reading (ppm)	Depth (feet bgs)	Lithologic Unit	USCS Type/Designation	Soil Description
				4.9	0			Concrete pad
	2210	2210	24/6	22.9	1			Dark brown moist gravelly sand
				22.9	2			w/odor
					3			No recovery
					4			too soft
					5			
		12/60		1350	6			coarse gravelly sand w/ odor
					7			
					8			No recovery
					9			to soft
					10			
					11			
					12			
					13			
					14			
					15			
					16			
					17			
					18			
					19			
					20			
					21			
					22			
					23			
					24			
					25			

PC4-SB@
2230

PROJECT: Mayors Point
SITE: PacComm
BORING ID: PC5

MW ID: PC5

DATE: ~~3/9/21~~ 3/10/21
LOGGED BY: JWS
Page 1 of 1

Sampler Type/Interval	Time	Recovered/Driven (in./in.)	Pocket Penetrometer (ton/ft ²)	PID Reading (ppm)	Depth (feet bgs)	Lithologic Unit	USCS Type/Designation	Soil Description
Hand Auger	245		29.2		0			Gravelly dark brown sand w/ odor
			78.2		1			
			55.1		2			
			86.5		3			
			308.7		4			
DPT			656		5			Most dark brown sand
					6			
					7			
					8			
					9			
					10			
					11			
					12			
					13			
					14			
					15			
					16			
					17			
					18			
					19			
					20			
					21			
					22			
					23			
					24			
					25			

PC5-SB@255

PC5-SB-DUP
@300

PROJECT: Mayors Point
SITE:
BORING ID: OP1

MW ID:

DATE: 3/9
LOGGED BY: JWS

Page 1 of 1

Sampler Type/Interval	Time	Recovered/Driven (in./in.)	Pocket Penetrometer (tons/in. ²)	PID Reading (ppm)	Depth (feet bgs)	Lithologic Unit	USCS Type/Designation	Soil Description
	1915			0.0	0			Dry gravelly sand w/ organics
				0.0	1			
		60/60		0.0	2			Light brown dry sand
				0.2	3			
				0.1	4			Moist dark brown coarse sand
				0.0	5			
		60/60		0.0	6			Saturated brown / light brown
				0.0	7			med-grained sand
				1.3	8			
				0.0	9			
					10			
					11			
					12			
					13			
					14			
					15			
					16			
					17			
					18			
					19			
					20			
					21			
					22			
					23			
					24			
					25			

OP1-SB @ 1930

PROJECT: Majors Point
SITE:
BORING ID: OP2

MW ID: OP2

DATE: 3/4/21
LOGGED BY: JWS

Page 1 of 1

Sampler Type/Interval	Time	Recovered/Driven (in./in.)	Pocket Penetrometer (ton/ft ²)	PID Reading (ppm)	Depth (feet bgs)	Lithologic Unit	USCS Type/Designation	Soil Description
	2000			3.2	0			Concrete
				279	1			Loose chunky fill material
		60/60		127	2			
				33.4	3			Black moist coarse sand
				119.4	4			white chalky material
					5			Black coarse sand w/ odor
					6			
		0/60			7			No recovery;
					8			material too unconsolidated
					9			DPT tube driven w/ no effort
					10			
					11			
					12			
					13			
					14			
					15			
					16			
					17			
					18			
					19			
					20			
					21			
					22			
					23			
					24			
					25			

OP2-SB @
2015

PROJECT: Mayors Part
 SITE: OP
 BORING ID: OP3 MW ID: OP3

DATE: 3/9/21
 LOGGED BY: JWS
 Page 1 of 1

Sampler Type/Interval	Time	Recovered/Driven (in./in.)	Pocket Penetrometer (tonneft ²)	PID Reading (ppm)	Depth (feet bgs)	Lithologic Unit	USCS Type/Designation	Soil Description
	2046			22.4	0			
				5.3	1			Moist dark sand w/ organics
					2			
				233	3			
				155	4			Coarse black sand
				100	5			wet w/ odor
				72	6			Dark gray silty sand
				21.3	7			Moist light gray fine sand
				3.2	8			
				1.8	9			Dark gray wet silt
				1.0	10			
					11			
					12			
					13			
					14			
					15			
					16			
					17			
					18			
					19			
					20			
					21			
					22			
					23			
					24			
					25			

OP3-SB @
2055

DPT

PROJECT: Mayors Pmtl
SITE: Ocean Petroleum
BORING ID: OP4

MW ID: OP4

DATE: 3/9/21
LOGGED BY: JWS

Page 1 of 1

Sampler Type/Interval	Time	Recovered/Driven (in./in.)	Pocket Penetrometer (tons/ft ²)	PID Reading (ppm)	Depth (feet bgs)	Lithologic Unit	USCS Type/Designation	Soil Description
	2:35			0.8	0			
				0.0	1			
		60/60		0.0	2			Dark brown damp med-grained sand
OPT				0.0	3			
				0.0	4			Light brown damp med-grained sand
				0.0	5			
				0.2	6			
		60/60		63.3	7			Saturated uniform med-grained sand
				12.7	8			
				1.0	9			
				0.4	10			Saturated dark brown med-grained sand
					11			
					12			
					13			
					14			
					15			
					16			
					17			
					18			
					19			
					20			
					21			
					22			
					23			
					24			
					25			

OP4-SB @
2155

BOREHOLE LOG



Page 1 of 1

Boring ID: <u>PCT</u>	
Monitoring Well ID: <u>PC 1</u>	
Project Number:	Project Name: <u>Myers Point</u>
Client: <u>Resolve Marine</u>	
Site:	
Borehole Location: <u>Eastern Pacific</u>	
Northing:	Easting:
Logged By: <u>Snyder</u>	
Reviewed By:	Review Date:
Drilling Contractor: <u>Geolab</u>	
Drill Rig Type/Method: <u>7822 GeoProbe</u>	
Sampler Type:	
Borehole Diameter (Surface Casing):	to: feet bgs
Borehole Diameter (Well): <u>8 1/4</u>	to: feet bgs
Drill Start Date: <u>3/8</u>	Drill Start Time: <u>1845</u>
Drill Finish Date: <u>3/8</u>	Drill Finish Time: <u>1915</u>
Total Borehole Depth (feet bgs): <u>15</u>	
Soil Boring Backfill Date: <u>-</u>	Soil Boring Backfill Time: <u>-</u>
Ground Surface Reference Elevation (feet NGVD): <u>-</u>	
Depth to Target Zone (feet bgs): <u>-</u>	
Well Completion Date: <u>3/8</u>	Well Completion Time:
Screen Interval (feet bgs): <u>15</u> to <u>10</u>	Total Well Depth (feet bgs): <u>15</u>
Well Diameter: <u>2</u>	Well Casing Material: <u>PVC</u>

BOREHOLE LOCATION MAP



NOTES/REMARKS

filter 3 to 15

bent 1.5 to 3

BOREHOLE LOG



Page 1 of 1

Boring ID: <u>PC2</u>	
Monitoring Well ID:	
Project Number:	Project Name: <u>Mayors Pent</u>
Client: <u>Resolve Marine</u>	
Site:	
Borehole Location: <u>Central PacCom</u>	
Northing:	Easting:
Logged By: <u>Snyd</u>	
Reviewed By:	Review Date:
Drilling Contractor: <u>Geolab</u>	
Drill Rig Type/Method: <u>Geoprobe</u>	
Sampler Type: <u>DPT</u>	
Borehole Diameter (Surface Casing):	to: feet bgs
Borehole Diameter (Well): <u>8 1/4</u>	to: feet bgs
Drill Start Date: <u>3/8/21</u>	Drill Start Time:
Drill Finish Date: <u>3/8/21</u>	Drill Finish Time:
Total Borehole Depth (feet bgs):	
Soil Boring Backfill Date:	Soil Boring Backfill Time:
Ground Surface Reference Elevation (feet NGVD):	
Depth to Target Zone (feet bgs):	
Well Completion Date: <u>3/8</u>	Well Completion Time:
Screen Interval (feet bgs): <u>14</u> to <u>4</u>	Total Well Depth (feet bgs): <u>14</u>
Well Diameter: <u>2</u>	Well Casing Material: <u>PVC</u>

BOREHOLE LOCATION MAP



NOTES/REMARKS

Screen 14 to 4

Sand 14 to 2.5

Bent 2.5 to 1.5

BOREHOLE LOG



Page 1 of 1

Boring ID: <u>PC3</u>	
Monitoring Well ID: <u>PC3</u>	
Project Number:	Project Name: <u>Mayors Point</u>
Client: <u>Resolve Marine</u>	
Site: <u>Mayors Point</u>	
Borehole Location: <u>SW side of dock ramp</u>	
Northing:	Easting:
Logged By: <u>JS</u>	
Reviewed By:	Review Date:
Drilling Contractor: <u>GeoLab</u>	
Drill Rig Type/Method: <u>Geo probe</u>	
Sampler Type: <u>DPT</u>	
Borehole Diameter (Surface Casing):	to: feet bgs
Borehole Diameter (Well): <u>8 1/4</u>	to: feet bgs
Drill Start Date: <u>3/8</u>	Drill Start Time:
Drill Finish Date: <u>3/8</u>	Drill Finish Time:
Total Borehole Depth (feet bgs): <u>14</u>	
Soil Boring Backfill Date: <u>-</u>	Soil Boring Backfill Time:
Ground Surface Reference Elevation (feet NGVD):	
Depth to Target Zone (feet bgs):	
Well Completion Date: <u>3/8</u>	Well Completion Time: <u>2200</u>
Screen Interval (feet bgs): <u>4</u> to <u>14</u>	Total Well Depth (feet bgs): <u>14</u>
Well Diameter: <u>2</u>	Well Casing Material: <u>PVC</u>

BOREHOLE LOCATION MAP



NOTES/REMARKS

14 → 2.5 sand2.5 → 1.5 Bent

BOREHOLE LOG



Page 1 of 1

Boring ID: <u>PC4</u>	
Monitoring Well ID: <u>PC4</u>	
Project Number:	Project Name: <u>Mayors Point</u>
Client: <u>Resolve Marine</u>	
Site: <u>PacLan</u>	
Borehole Location: <u>SW corner of PacLan</u>	
Northing:	Easting:
Logged By: <u>JWS</u>	
Reviewed By:	Review Date:
Drilling Contractor: <u>Geotech</u>	
Drill Rig Type/Method: <u>GeoProbe</u>	
Sampler Type: <u>DPT</u>	
Borehole Diameter (Surface Casing):	to: feet bgs
Borehole Diameter (Well): <u>8 1/4</u>	to: feet bgs
Drill Start Date: <u>3/8</u>	Drill Start Time:
Drill Finish Date: <u>3/8</u>	Drill Finish Time:
Total Borehole Depth (feet bgs): <u>14</u>	
Soil Boring Backfill Date:	Soil Boring Backfill Time:
Ground Surface Reference Elevation (feet NGVD):	
Depth to Target Zone (feet bgs):	
Well Completion Date: <u>3/8</u>	Well Completion Time:
Screen Interval (feet bgs): <u>4 to 14</u>	Total Well Depth (feet bgs): <u>14</u>
Well Diameter: <u>2</u>	Well Casing Material: <u>PVC</u>

BOREHOLE LOCATION MAP



NOTES/REMARKS

14 to 2.5 sand
2.5 to 1.5 Bentonite

BOREHOLE LOG



Page 1 of 1

Boring ID: <u>PCMH 5</u>	
Monitoring Well ID: <u>PCMH 5</u>	
Project Number:	Project Name: <u>Mayors Point</u>
Client: <u>Reserve Marine</u>	
Site: <u>Pac Comm</u>	
Borehole Location: <u>By dock ramp</u>	
Northing:	Easting:
Logged By: <u>JWS</u>	
Reviewed By:	Review Date:
Drilling Contractor: <u>Geolab</u>	
Drill Rig Type/Method: <u>Geoprobe</u>	
Sampler Type: <u>Hand auger + DPT</u>	
Borehole Diameter (Surface Casing): <u>8 1/4</u>	to: feet bgs
Borehole Diameter (Well): <u>8 1/4</u>	to: feet bgs
Drill Start Date: <u>3/10/21</u>	Drill Start Time: <u>230</u>
Drill Finish Date: <u>3/10/21</u>	Drill Finish Time: <u>300</u>
Total Borehole Depth (feet bgs): <u>14</u>	
Soil Boring Backfill Date: <u>-</u>	Soil Boring Backfill Time: <u>-</u>
Ground Surface Reference Elevation (feet NGVD): <u>-</u>	
Depth to Target Zone (feet bgs): <u>-</u>	
Well Completion Date: <u>3/10</u>	Well Completion Time: <u>330</u>
Screen Interval (feet bgs): <u>14 to 4</u>	Total Well Depth (feet bgs): <u>14</u>
Well Diameter: <u>2</u>	Well Casing Material: <u>PC</u>

BOREHOLE LOCATION MAP



NOTES/REMARKS

Sand 14 to 2.5

Bed 2.5 to 1.5

BOREHOLE LOG



Page 1 of 1

Boring ID: <u>OP1</u>	
Monitoring Well ID: <u>OP1</u>	
Project Number: <u> </u>	Project Name: <u>Mayors Point</u>
Client: <u>Resolve Marine</u>	
Site: <u>Ocean Petroleum</u>	
Borehole Location: <u>NE corner of site</u>	
Northing: <u> </u>	Easting: <u> </u>
Logged By: <u>JWS</u>	
Reviewed By: <u> </u>	Review Date: <u> </u>
Drilling Contractor: <u>Geolab</u>	
Drill Rig Type/Method: <u>GeoProbe</u>	
Sampler Type: <u>DPT</u>	
Borehole Diameter (Surface Casing): <u>8 1/4"</u>	to: <u> </u> feet bgs
Borehole Diameter (Well): <u>8 1/4"</u>	to: <u> </u> feet bgs
Drill Start Date: <u>3/9/21</u>	Drill Start Time: <u>1915</u>
Drill Finish Date: <u>3/9/21</u>	Drill Finish Time: <u>1930</u>
Total Borehole Depth (feet bgs): <u>14</u>	
Soil Boring Backfill Date: <u>-</u>	Soil Boring Backfill Time: <u>-</u>
Ground Surface Reference Elevation (feet NGVD): <u>-</u>	
Depth to Target Zone (feet bgs): <u>-</u>	
Well Completion Date: <u>3/9/21</u>	Well Completion Time: <u>1930</u>
Screen Interval (feet bgs): <u>14</u> to <u>4</u>	Total Well Depth (feet bgs): <u>14</u>
Well Diameter: <u>2</u>	Well Casing Material: <u>PVC</u>

BOREHOLE LOCATION MAP



NOTES/REMARKS

Sand - 14 to 2.5

Benet - 2.5 - 1.5

BOREHOLE LOG



Page 1 of 1

Boring ID: <u>OP2</u>	
Monitoring Well ID: <u>OP2</u>	
Project Number:	Project Name: <u>Mayers Pond</u>
Client: <u>Resolve Marine</u>	
Site: <u>Ocean Petroleum</u>	
Borehole Location: <u>Pac Comm Property line / center</u>	
Northing:	Easting:
Logged By: <u>JS</u>	
Reviewed By: <u>-</u>	Review Date:
Drilling Contractor: <u>Geolab</u>	
Drill Rig Type/Method: <u>Geoprobe</u>	
Sampler Type: <u>DPT</u>	
Borehole Diameter (Surface Casing): <u>8 1/4</u>	to: feet bgs
Borehole Diameter (Well): <u>8 1/4</u>	to: feet bgs
Drill Start Date: <u>3/9/21</u>	Drill Start Time:
Drill Finish Date: <u>3/9/21</u>	Drill Finish Time:
Total Borehole Depth (feet bgs): <u>14</u>	
Soil Boring Backfill Date: <u>-</u>	Soil Boring Backfill Time: <u>-</u>
Ground Surface Reference Elevation (feet NGVD): <u>-</u>	
Depth to Target Zone (feet bgs): <u>-</u>	
Well Completion Date: <u>3/9/21</u>	Well Completion Time: <u>2025</u>
Screen Interval (feet bgs): <u>4-14</u> to	Total Well Depth (feet bgs):
Well Diameter: <u>2</u>	Well Casing Material: <u>PK</u>

BOREHOLE LOCATION MAP



NOTES/REMARKS

Sand 14 to 2.5Ben+ 2.5 to 1.5

BOREHOLE LOG



Page 1 of 1

Boring ID: <u>OP3</u>	
Monitoring Well ID: <u>OP3</u>	
Project Number:	Project Name: <u>Maple Point</u>
Client: <u>Reserve Marine</u>	
Site: <u>Ocean Replen</u>	
Borehole Location: <u>West side of OP</u>	
Northing:	Easting:
Logged By: <u>JS</u>	
Reviewed By:	Review Date:
Drilling Contractor: <u>GeoLab</u>	
Drill Rig Type/Method: <u>GeoProbe</u>	
Sampler Type: <u>DPT</u>	
Borehole Diameter (Surface Casing): <u>8 1/4</u>	to: feet bgs
Borehole Diameter (Well): <u>8 1/4</u>	to: feet bgs
Drill Start Date: <u>3/9</u>	Drill Start Time: <u>2040</u>
Drill Finish Date: <u>3/9</u>	Drill Finish Time: <u>2110</u>
Total Borehole Depth (feet bgs): <u>14</u>	
Soil Boring Backfill Date: <u>-</u>	Soil Boring Backfill Time: <u>-</u>
Ground Surface Reference Elevation (feet NGVD): <u>-</u>	
Depth to Target Zone (feet bgs): <u>-</u>	
Well Completion Date: <u>3/9</u>	Well Completion Time: <u>2110</u>
Screen Interval (feet bgs): <u>4</u> to <u>14</u>	Total Well Depth (feet bgs): <u>14</u>
Well Diameter: <u>2</u>	Well Casing Material: <u>PVC</u>

BOREHOLE LOCATION MAP



NOTES/REMARKS

Sand 14 to 2.5

But 2.5 to 1.5

BOREHOLE LOG



Page 1 of 1

Boring ID: <u>OP4-SB</u>	
Monitoring Well ID: <u>OP4-SB</u>	
Project Number:	Project Name: <u>Mayors Point</u>
Client: <u>Resolve Maine</u>	
Site: <u>Ocean Petroleum</u>	
Borehole Location: <u>SE Corner</u>	
Northing:	Easting:
Logged By: <u>JS</u>	
Reviewed By:	Review Date:
Drilling Contractor: <u>GeoLab</u>	
Drill Rig Type/Method: <u>GeoProbe</u>	
Sampler Type: <u>OPT</u>	
Borehole Diameter (Surface Casing): <u>8 1/4</u>	to: feet bgs
Borehole Diameter (Well): <u>8 1/4</u>	to: feet bgs
Drill Start Date: <u>3/9/21</u>	Drill Start Time: <u>2135</u>
Drill Finish Date: <u>3/9/21</u>	Drill Finish Time: <u>2205</u>
Total Borehole Depth (feet bgs): <u>14</u>	
Soil Boring Backfill Date: <u>-</u>	Soil Boring Backfill Time: <u>-</u>
Ground Surface Reference Elevation (feet NGVD): <u>-</u>	
Depth to Target Zone (feet bgs): <u>-</u>	
Well Completion Date: <u>3/9/21</u>	Well Completion Time: <u>2230</u>
Screen Interval (feet bgs): <u>4</u> to <u>14</u>	Total Well Depth (feet bgs): <u>14</u>
Well Diameter: <u>2</u>	Well Casing Material: <u>PVC</u>

BOREHOLE LOCATION MAP



NOTES/REMARKS

Sand 14 to 2.5
Bent 2.5 to 1.5



ENCLOSURE 3

TETRA TECH DATA VALIDATION REPORT

(16 Sheets)



DATA VALIDATION CHECKLIST – STAGE 2A

Site Name	Brunswick	Project No.	103Z7212
Data Reviewer (signature and date)	 4/15/21	Technical Reviewer (signature and date)	 April 20, 2021
Laboratory Report No.	680-189047-1	Laboratory	Eurofins TestAmerica/Savannah, GA
Analyses	Volatile organic compounds (VOCs) by SW-846 Method 8260B and gasoline range organics (GRO), diesel range organics (DRO), and oil range organics (ORO) by SW-846 Methods 8015C/8015D		
Samples and Matrix	Three groundwater and ten soil samples (including one field duplicate)		
Field Duplicate Pairs	PC5-SB/PC5-SB-DUP		
Field Blanks	Trip Blank 1 and Trip Blank 2		

INTRODUCTION

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the U.S. Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *National Functional Guidelines (NFG) for Organic Superfund Methods Data Review* (January 2017).

OVERALL EVALUATION

No rejection of the data was required for this data package. The results may be used as presented based on the findings of this validation effort.

Data completeness:

Within Criteria	Exceedance/Notes
N	Sample PC5-SB was inadvertently not marked for analytical method 8015D ORO on the chain of custody (COC); however, the laboratory analyzed the sample for this method. In addition, the laboratory noted that IDs on the sample containers did not match the COC and were logged as per the COC.

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	

DATA VALIDATION CHECKLIST – STAGE 2A

Method blanks:

Within Criteria	Exceedance/Notes
N	<p>VOCs: The method blank for preparation batch 680-660167/12 (analytical batch 660167) contained toluene above the method detection limit (MDL). The toluene result for OP4-SB was qualified as estimated, possibly biased high (flagged J+). The toluene result sample PC1-SB was raised to the reporting limit and qualified as non-detect (flagged U).</p> <p>DRO: The method blank for preparation batch 680-659183/13-A (analytical batch 659296) contained DRO above the MDL. Sample results for OP1-SB, PC1-SB, and PC2-SB were qualified as estimated, possibly biased high (flagged J+).</p> <p>DRO: The method blank for preparation batch 680-659304/1-A (analytical batch 659296) contained DRO above the MDL. Sample result for SS2-GW was qualified as estimated, possibly biased high (flagged J+).</p>

Field blanks:

Within Criteria	Exceedance/Notes
Y	

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
N	In the VOC analysis, surrogates dibromofluoromethane and 1,2-dichloroethane-d ₄ yielded recoveries above acceptance limits for sample PC2-SB. No qualifications were applied because associated sample results were non-detect.

MS/MSD:

Within Criteria	Exceedance/Notes
Y	

Laboratory duplicates:

Within Criteria	Exceedance/Notes
NA	

DATA VALIDATION CHECKLIST – STAGE 2A

Field duplicates:

Within Criteria	Exceedance/Notes
N	PC5-SB/PC5-SB-DUP: The sample difference or relative percent difference criteria were exceeded for ethylbenzene, toluene, and xylenes (total). These results in the duplicate pair were qualified as estimated (flagged J).

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
Y	

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	<p>DRO and ORO were analyzed at 5-fold dilutions for samples OP3-SB, PC5-SB, and PC5-SB-DUP.</p> <p>DRO was analyzed at a 10-fold dilution for samples PC4-SB; and at a 20-fold dilution for sample PC3-SB.</p> <p>GRO was analyzed at 100-fold dilutions for samples OP1-SB, OP4-SB, OP5-GW, PC1-SB, and PC2-SB; at a 1,000-fold dilution for samples OP2-SB and OP3-SB; at a 2,000-fold dilution for samples PC5-SB and PC5-SB-DUP; at a 5,000-fold dilution for sample PC4-SB; and at a 20,000-fold dilution for sample PC3-SB.</p> <p>VOCs were analyzed at 100-fold dilutions for sample OP5-GW.</p> <p>Xylenes (total) was analyzed at a 100-fold dilution for sample PC4-SB and at a 500-fold dilution for sample PC3-SB.</p>

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

DATA VALIDATION CHECKLIST – STAGE 2A

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

Other [specify]:

Within Criteria	Exceedance/Notes
NA	

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

BRUNSWICK ANALYTICAL RESULTS SUMMARY
EUROFINS TESTAMERICA REPORT NO. 680-196067-1

Sample Name	Method	Analyte	Lab Result	Lab Flag	Units	MDL	RL	Val Result	Val Flag
OP1-SB	8015D	C6-C10	ND		mg/Kg	3.3	13	13	U
OP1-SB	8015D	Diesel Range Organics [C10-C28]	6.0	B	mg/Kg	2.5	3.9	23	J+
OP1-SB	8015D	Oil Range Organics (C20-C36)	ND		mg/Kg	23	23	5.5	U
OP1-SB	8260B	Benzene	ND		ug/Kg	0.80	5.5	5.5	U
OP1-SB	8260B	Ethylbenzene	ND		ug/Kg	1.4	5.5	11	U
OP1-SB	8260B	Toluene	1.0	J	ug/Kg	0.92	5.5	1.0	J
OP1-SB	8260B	Xylenes, Total	ND		ug/Kg	1.2	11	11	U
OP2-SB	8015D	C6-C10	610		mg/Kg	42	170	610	
OP2-SB	8015D	Diesel Range Organics [C10-C28]	580	B	mg/Kg	2.5	3.9	580	
OP2-SB	8015D	Oil Range Organics (C20-C36)	76		mg/Kg	24	24	76	
OP2-SB	8260B	Benzene	54000		ug/Kg	280	1900	54000	
OP2-SB	8260B	Ethylbenzene	33000		ug/Kg	510	1900	33000	
OP2-SB	8260B	Toluene	4700		ug/Kg	330	1900	4700	
OP2-SB	8260B	Xylenes, Total	31000		ug/Kg	430	3900	31000	
OP3-SB	8015D	C6-C10	1200		mg/Kg	62	250	1200	
OP3-SB	8015D	Diesel Range Organics [C10-C28]	100	B	mg/Kg	13	20	100	
OP3-SB	8015D	Oil Range Organics (C20-C36)	ND		mg/Kg	120	120	120	U
OP3-SB	8260B	Benzene	10000		ug/Kg	900	6200	10000	
OP3-SB	8260B	Ethylbenzene	13000		ug/Kg	1600	6200	13000	
OP3-SB	8260B	Toluene	24000		ug/Kg	1100	6200	24000	
OP3-SB	8260B	Xylenes, Total	71000		ug/Kg	1400	12000	71000	
OP4-SB	8015D	C6-C10	3.9	J	mg/Kg	3.3	13	3.9	J
OP4-SB	8015D	Diesel Range Organics [C10-C28]	210	B	mg/Kg	2.6	4.1	210	
OP4-SB	8015D	Oil Range Organics (C20-C36)	58		mg/Kg	25	25	58	
OP4-SB	8260B	Benzene	4.0	J	ug/Kg	0.78	5.3	4.0	J
OP4-SB	8260B	Ethylbenzene	6.8		ug/Kg	1.4	5.3	6.8	
OP4-SB	8260B	Toluene	14	B	ug/Kg	0.90	5.3	14	J+
OP4-SB	8260B	Xylenes, Total	37		ug/Kg	1.2	11	37	
OP5-GW	8015D	C6-C10	67		mg/L	5.0	10	67	
OP5-GW	8015D	Diesel Range Organics [C10-C28]	10	B	mg/L	0.067	0.30	10	
OP5-GW	8015D	Oil Range Organics (C20-C36)	ND		mg/L	0.33	2.0	2.0	U
OP5-GW	8260B	Benzene	ND		ug/L	43	100	100	U
OP5-GW	8260B	Ethylbenzene	6200		ug/L	33	100	6200	
OP5-GW	8260B	Toluene	540		ug/L	48	100	540	
OP5-GW	8260B	Xylenes, Total	19000		ug/L	23	100	19000	
PC1-SB	8015D	C6-C10	ND		mg/Kg	3.5	14	14	U
PC1-SB	8015D	Diesel Range Organics [C10-C28]	11	B	mg/Kg	2.7	4.2	11	J+



BRUNSWICK ANALYTICAL RESULTS SUMMARY
EUROFINS TESTAMERICA REPORT NO. 680-196067-1

Sample Name	Method	Analyte	Lab Result	Lab Flag	Units	MDL	RL	Val Result	Val Flag
PC1-SB	8015D	Oil Range Organics (C20-C36)	ND		mg/Kg	26	26	26	U
PC1-SB	8260B	Benzene	ND		ug/Kg	1.0	7.2	7.2	U
PC1-SB	8260B	Ethylbenzene	ND		ug/Kg	1.9	7.2	7.2	U
PC1-SB	8260B	Toluene	3.9	J B	ug/Kg	1.2	7.2	7.2	U
PC1-SB	8260B	Xylenes, Total	6.1	J	ug/Kg	1.6	14	6.1	J
PC2-SB	8015D	C6-C10	ND		mg/Kg	2.5	10	10	U
PC2-SB	8015D	Diesel Range Organics [C10-C28]	5.8	B	mg/Kg	2.2	3.5	5.8	J+
PC2-SB	8015D	Oil Range Organics (C20-C36)	ND		mg/Kg	21	21	21	U
PC2-SB	8260B	Benzene	ND		ug/Kg	0.86	5.9	5.9	U
PC2-SB	8260B	Ethylbenzene	ND		ug/Kg	1.5	5.9	5.9	U
PC2-SB	8260B	Toluene	1.1	J	ug/Kg	0.99	5.9	1.1	J
PC2-SB	8260B	Xylenes, Total	ND		ug/Kg	1.3	12	12	U
PC3-SB	8015D	C6-C10	8900		mg/Kg	550	2200	8900	
PC3-SB	8015D	Diesel Range Organics [C10-C28]	4500	B	mg/Kg	44	69	4500	
PC3-SB	8015D	Oil Range Organics (C20-C36)	260		mg/Kg	21	21	260	
PC3-SB	8260B	Benzene	130000		ug/Kg	4200	29000	130000	
PC3-SB	8260B	Ethylbenzene	360000		ug/Kg	7600	29000	360000	
PC3-SB	8260B	Toluene	850000	B	ug/Kg	5000	29000	850000	
PC3-SB	8260B	Xylenes, Total	1800000		ug/Kg	61000	550000	1800000	
PC4-SB	8015D	C6-C10	6600		mg/Kg	260	1000	6600	
PC4-SB	8015D	Diesel Range Organics [C10-C28]	2700	B	mg/Kg	27	42	2700	
PC4-SB	8015D	Oil Range Organics (C20-C36)	300		mg/Kg	26	26	300	
PC4-SB	8260B	Benzene	92000		ug/Kg	1500	10000	92000	
PC4-SB	8260B	Ethylbenzene	160000		ug/Kg	2600	10000	160000	
PC4-SB	8260B	Toluene	320000	B	ug/Kg	1700	10000	320000	
PC4-SB	8260B	Xylenes, Total	800000		ug/Kg	23000	210000	800000	
PC5-SB	8015D	C6-C10	2700		mg/Kg	88	350	2700	
PC5-SB	8015D	Diesel Range Organics [C10-C28]	1200	B	mg/Kg	13	20	1200	
PC5-SB	8015D	Oil Range Organics (C20-C36)	ND		mg/Kg	120	120	120	U
PC5-SB	8260B	Benzene	64000		ug/Kg	6400	44000	64000	
PC5-SB	8260B	Ethylbenzene	140000		ug/Kg	11000	44000	140000	J
PC5-SB	8260B	Toluene	150000		ug/Kg	7500	44000	150000	J
PC5-SB	8260B	Xylenes, Total	650000		ug/Kg	9700	88000	650000	J
PC5-SB-DUP	8015D	C6-C10	2900		mg/Kg	88	350	2900	
PC5-SB-DUP	8015D	Diesel Range Organics [C10-C28]	1400	B	mg/Kg	13	20	1400	
PC5-SB-DUP	8015D	Oil Range Organics (C20-C36)	ND		mg/Kg	120	120	120	U
PC5-SB-DUP	8260B	Benzene	26000	J	ug/Kg	6400	44000	26000	J

BRUNSWICK ANALYTICAL RESULTS SUMMARY
EUROFINS TESTAMERICA REPORT NO. 680-196067-1

Sample Name	Method	Analyte	Lab Result	Lab Flag	Units	MDL	RL	Val Result	Val Flag
PC5-SB-DUP	8260B	Ethylbenzene	68000		ug/Kg	11000	44000	68000	J
PC5-SB-DUP	8260B	Toluene	42000	J	ug/Kg	7500	44000	42000	J
PC5-SB-DUP	8260B	Xylenes, Total	320000		ug/Kg	9700	88000	320000	J
SS1-GW	8015D	C6-C10	ND		mg/L	0.050	0.10	0.10	U
SS1-GW	8015D	Diesel Range Organics [C10-C28]	1.2	B	mg/L	0.093	0.41	1.2	
SS1-GW	8015D	Oil Range Organics (C20-C36)	1.0	J	mg/L	0.45	2.7	1.0	J
SS1-GW	8260B	Benzene	ND		ug/L	0.43	1.0	1.0	U
SS1-GW	8260B	Ethylbenzene	ND		ug/L	0.33	1.0	1.0	U
SS1-GW	8260B	Toluene	ND		ug/L	0.48	1.0	1.0	U
SS1-GW	8260B	Xylenes, Total	ND		ug/L	0.23	1.0	1.0	U
SS2-GW	8015D	C6-C10	ND		mg/L	0.050	0.10	0.10	U
SS2-GW	8015D	Diesel Range Organics [C10-C28]	0.46	B	mg/L	0.075	0.33	0.46	J+
SS2-GW	8015D	Oil Range Organics (C20-C36)	ND		mg/L	0.36	2.2	2.3	U
SS2-GW	8260B	Benzene	ND		ug/L	0.43	1.0	1.0	U
SS2-GW	8260B	Ethylbenzene	ND		ug/L	0.33	1.0	1.0	U
SS2-GW	8260B	Toluene	ND		ug/L	0.48	1.0	1.0	U
SS2-GW	8260B	Xylenes, Total	ND		ug/L	0.23	1.0	1.0	U
Trip Blank 1	8260B	Benzene	ND		ug/L	0.43	1.0	1.0	U
Trip Blank 1	8260B	Ethylbenzene	ND		ug/L	0.33	1.0	1.0	U
Trip Blank 1	8260B	Toluene	ND		ug/L	0.48	1.0	1.0	U
Trip Blank 1	8260B	Xylenes, Total	ND		ug/L	0.23	1.0	1.0	U
Trip Blank 2	8260B	Benzene	ND		ug/L	0.43	1.0	1.0	U
Trip Blank 2	8260B	Ethylbenzene	ND		ug/L	0.33	1.0	1.0	U
Trip Blank 2	8260B	Toluene	ND		ug/L	0.48	1.0	1.0	U
Trip Blank 2	8260B	Xylenes, Total	ND		ug/L	0.23	1.0	1.0	U

DATA VALIDATION CHECKLIST – STAGE 2A

Site Name	Brunswick	Project No.	103Z7212
Data Reviewer (signature and date)	 4/16/21	Technical Reviewer (signature and date)	 April 20, 2021
Laboratory Report No.	680-196209-1	Laboratory	Eurofins TestAmerica/Savannah
Analyses	Volatile organic compounds (VOCs) by SW-846 Method 8260B, gasoline range organics (GRO), diesel range organics (DRO), oil range organics (ORO) by SW-846 Method 8015C/8015D, and hydrocarbon product identification (petroleum fingerprinting) by Method 8015B.		
Samples and Matrix	Nineteen groundwater samples, including one duplicate and one trip blank		
Field Duplicate Pairs	MW01-GW/MW01-GW-DUP		
Field Blanks	Trip Blank		

INTRODUCTION

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the U.S. Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *National Functional Guidelines (NFG) for Organic Superfund Methods Data Review* (January 2017).

OVERALL EVALUATION

No rejection of the data was required for this data package. The results may be used as presented based on the findings of this validation effort.

Data completeness:

Within Criteria	Exceedance/Notes
N	<p>The sample receipt checklist from the laboratory indicates that there was enough sample volume for MS/MSD; however, the laboratory case narrative states the laboratory was unable to run MS/MSD due to insufficient sample volume. MS/MSDs were not run for this project.</p> <p>Fingerprinting: Qualitative fingerprinting analysis was performed on three samples. Because the analysis was qualitative, no validation was performed on this data. The laboratory-provided fingerprinting determinations are presented below:</p> <ul style="list-style-type: none"> • GPA01-GW contained a petroleum product which most closely resembles unleaded gasoline. • MW11-GW contained a petroleum product which most closely resembles #2 fuel oil. • PC03-GW contained a petroleum product which most closely resembles gasoline/diesel/#2 fuel oil.

DATA VALIDATION CHECKLIST – STAGE 2A

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
N	<p>VOCs: Samples GPA05-GW and OP03-GW were collected in a properly preserved vial; however, the pH greater than 2 (outside the required criteria) when verified by the laboratory. The samples were analyzed outside the 7-day holding time specified for unpreserved samples, but within the 14-day holding time specified for preserved samples. Therefore, the associated VOC results were qualified as estimated, possibly biased low (flagged J-/UJ).</p> <p>DRO/ORO: Due to issues with method blank contamination, samples MW01-GW, MW01-GW-DUP, OP01-GW, OP03-GW, OP04-GW, PC04-GW, and PC05-GW were re-extracted and/or reanalyzed outside of holding time for DRO and ORO. Both sets of results were reported. See the “Re-extraction and Reanalysis” section below.</p>

Method blanks:

Within Criteria	Exceedance/Notes
N	<p>DRO: The method blank for preparation batch 680-660082 (analytical batch 660455) contained DRO above the method detection limit (MDL). The DRO results for samples OP03-GW, OP04-GW, PC04-GW, and PC05-GW were qualified as estimated, possibly biased high (flagged J+). The DRO result for sample OP01-GW was raised to the reporting limit and qualified as non-detect (flagged U).</p> <p>DRO: The method blank for preparation batch 680-661024 (analytical batch 661188) contained DRO above the MDL. No qualifications were applied because this method blank was associated with the re-extracted/reanalysis data that was not reported for the final validation.</p>

Field blanks:

Within Criteria	Exceedance/Notes
Y	

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
N	<p>DRO/ORO: Surrogate o-terphenyl yielded recovery above the acceptance limits for the LCS in analysis batch 664455; however, no qualifications are applied to quality control samples.</p>

DATA VALIDATION CHECKLIST – STAGE 2A

MS/MSD:

Within Criteria	Exceedance/Notes
NA	

Laboratory duplicates:

Within Criteria	Exceedance/Notes
NA	

Field duplicates:

Within Criteria	Exceedance/Notes
Y	

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
N	The LCS recovery and relative percent difference for DRO in analysis batch 640455 was above criteria. Detected analytes in samples MW01-GW, MW01-GW-DUP, OP03-GW, OP04-GW, PC04-GW, and PC05-GW were qualified as estimated, possibly biased high (flagged J+).

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	GRO was analyzed at a 10-fold dilution for samples OP02-GW and PC04-GW; at a 20-fold dilution for samples MW11-GW, MW13-GW, MW18-GW, and PC05-GW; at a 50-fold dilution for sample GPA09-GW; and at a 100-fold dilution for samples GPA05-GW, MW01-GW, and MW01-GW-DUP. VOCs were analyzed at 2-fold dilutions for sample OP2-GW; at 10-fold dilutions for sample PC04-GW; at 20-fold dilutions for samples MW11-GW, MW13-GW, and MW18-GW; at 50-fold dilutions for samples GPA09-GW and PC05-GW; and at 200-fold dilutions for samples GPA05-GW, MW01-GW, and MW01-GW-DUP.

DATA VALIDATION CHECKLIST – STAGE 2A

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
N	DRO/ORO: Due to issues with method blank contamination, samples MW01-GW, MW01-GW-DUP, OP01-GW, OP03-GW, OP04-GW, PC04-GW, and PC05-GW were re-extracted and/or reanalyzed outside of holding time for DRO and ORO. Based on an evaluation of both sets of data provided, the original results were reported for these samples because the method blank associated with the re-extracted/reanalyzed samples also displayed contamination.

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

Other [specify]:

Within Criteria	Exceedance/Notes
NA	

DATA VALIDATION CHECKLIST – STAGE 2A

Overall Qualifications:

See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.

BRUNSWICK ANALYTICAL RESULTS SUMMARY
EUROFINS TESTAMERICA REPORT NO. 680-196209-1

Sample Name	Method	Analyte	Lab Result	Lab Flag	Units	MDL	RL	Val Result	Val Flag
GPA05-GW	8015D	C6-C10	46		mg/L	5.0	10	46	
GPA05-GW	8015D	Diesel Range Organics [C10-C28]	5.0		mg/L	0.083	0.37	5.0	
GPA05-GW	8015D	Oil Range Organics (C20-C36)	ND		mg/L	0.40	2.5	2.5	U
GPA05-GW	8260B	Benzene	5800	H4	ug/L	86	200	5800	J-
GPA05-GW	8260B	Ethylbenzene	2500	H4	ug/L	66	200	2500	J-
GPA05-GW	8260B	Toluene	ND	H4	ug/L	96	200	200	UJ
GPA05-GW	8260B	Xylenes, Total	6800	H4	ug/L	46	200	6800	J-
GPA09-GW	8015D	C6-C10	18		mg/L	2.5	5.0	18	
GPA09-GW	8015D	Diesel Range Organics [C10-C28]	1.6		mg/L	0.068	0.30	1.6	
GPA09-GW	8015D	Oil Range Organics (C20-C36)	ND		mg/L	0.33	2.0	2.0	U
GPA09-GW	8260B	Benzene	1200		ug/L	22	50	1200	
GPA09-GW	8260B	Ethylbenzene	1200		ug/L	17	50	1200	
GPA09-GW	8260B	Toluene	62		ug/L	24	50	62	
GPA09-GW	8260B	Xylenes, Total	1200		ug/L	12	50	1200	
GPA11-GW	8015D	C6-C10	ND		mg/L	0.050	0.10	0.10	U
GPA11-GW	8015D	Diesel Range Organics [C10-C28]	0.18	J	mg/L	0.069	0.31	0.18	J
GPA11-GW	8015D	Oil Range Organics (C20-C36)	ND		mg/L	0.34	2.0	2.0	U
GPA11-GW	8260B	Benzene	7.8		ug/L	0.43	1.0	7.8	
GPA11-GW	8260B	Ethylbenzene	ND		ug/L	0.33	1.0	1.0	U
GPA11-GW	8260B	Toluene	ND		ug/L	0.48	1.0	1.0	U
GPA11-GW	8260B	Xylenes, Total	0.41	J	ug/L	0.23	1.0	0.41	J
MW01-GW	8015D	C6-C10	37		mg/L	5.0	10	37	
MW01-GW	8015D	Diesel Range Organics [C10-C28]	7.6	B *+ *1	mg/L	0.077	0.34	7.6	J+
MW01-GW	8015D	Oil Range Organics (C20-C36)	1.6	J	mg/L	0.37	2.3	1.6	J
MW01-GW	8260B	Benzene	5400		ug/L	86	200	5400	
MW01-GW	8260B	Ethylbenzene	1000		ug/L	66	200	1000	
MW01-GW	8260B	Toluene	700		ug/L	96	200	700	
MW01-GW	8260B	Xylenes, Total	3900		ug/L	46	200	3900	
MW01-GW-DUP	8015D	C6-C10	38		mg/L	5.0	10	38	
MW01-GW-DUP	8015D	Diesel Range Organics [C10-C28]	6.8	B *+ *1	mg/L	0.088	0.39	6.8	J+
MW01-GW-DUP	8015D	Oil Range Organics (C20-C36)	1.6	J	mg/L	0.43	2.6	1.6	J
MW01-GW-DUP	8260B	Benzene	5200		ug/L	86	200	5200	
MW01-GW-DUP	8260B	Ethylbenzene	1000		ug/L	66	200	1000	
MW01-GW-DUP	8260B	Toluene	710		ug/L	96	200	710	
MW01-GW-DUP	8260B	Xylenes, Total	3800		ug/L	46	200	3800	
MW11-GW	8015D	C6-C10	11		mg/L	1.0	2.0	11	
MW11-GW	8015D	Diesel Range Organics [C10-C28]	12		mg/L	0.067	0.30	12	

BRUNSWICK ANALYTICAL RESULTS SUMMARY
EUROFINS TESTAMERICA REPORT NO. 680-196209-1

Sample Name	Method	Analyte	Lab Result	Lab Flag	Units	MDL	RL	Val Result	Val Flag
MW11-GW	8015D	Oil Range Organics (C20-C36)	1.4	J	mg/L	0.33	2.0	1.4	J
MW11-GW	8260B	Benzene	770		ug/L	8.6	20	770	
MW11-GW	8260B	Ethylbenzene	380		ug/L	6.6	20	380	
MW11-GW	8260B	Toluene	1400		ug/L	9.6	20	1400	
MW11-GW	8260B	Xylenes, Total	1800		ug/L	4.6	20	1800	
MW13-GW	8015D	C6-C10	14		mg/L	1.0	2.0	14	
MW13-GW	8015D	Diesel Range Organics [C10-C28]	12		mg/L	0.078	0.34	12	
MW13-GW	8015D	Oil Range Organics (C20-C36)	0.88	J	mg/L	0.38	2.3	0.88	J
MW13-GW	8260B	Benzene	480		ug/L	8.6	20	480	
MW13-GW	8260B	Ethylbenzene	780		ug/L	6.6	20	780	
MW13-GW	8260B	Toluene	26		ug/L	9.6	20	26	
MW13-GW	8260B	Xylenes, Total	2400		ug/L	4.6	20	2400	
MW18-GW	8015D	C6-C10	5.9		mg/L	1.0	2.0	5.9	
MW18-GW	8015D	Diesel Range Organics [C10-C28]	3.0		mg/L	0.066	0.29	3.0	
MW18-GW	8015D	Oil Range Organics (C20-C36)	ND		mg/L	0.32	2.0	2.0	U
MW18-GW	8260B	Benzene	600		ug/L	8.6	20	600	
MW18-GW	8260B	Ethylbenzene	230		ug/L	6.6	20	230	
MW18-GW	8260B	Toluene	190		ug/L	9.6	20	190	
MW18-GW	8260B	Xylenes, Total	630		ug/L	4.6	20	630	
OP01-GW	8015D	C6-C10	ND		mg/L	0.050	0.10	0.10	U
OP01-GW	8015D	Diesel Range Organics [C10-C28]	0.23	J B *+ *1	mg/L	0.070	0.31	0.31	U
OP01-GW	8015D	Oil Range Organics (C20-C36)	ND		mg/L	0.34	2.1	2.1	U
OP01-GW	8260B	Benzene	0.70	J	ug/L	0.43	1.0	0.70	J
OP01-GW	8260B	Ethylbenzene	0.65	J	ug/L	0.33	1.0	0.65	J
OP01-GW	8260B	Toluene	1.4		ug/L	0.48	1.0	1.4	
OP01-GW	8260B	Xylenes, Total	3.8		ug/L	0.23	1.0	3.8	
OP02-GW	8015D	C6-C10	4.9		mg/L	0.50	1.0	4.9	
OP02-GW	8015D	Diesel Range Organics [C10-C28]	9.5		mg/L	0.088	0.39	9.5	
OP02-GW	8015D	Oil Range Organics (C20-C36)	1.4	J	mg/L	0.43	2.6	1.4	J
OP02-GW	8260B	Benzene	210		ug/L	0.86	2.0	210	
OP02-GW	8260B	Ethylbenzene	130		ug/L	0.66	2.0	130	
OP02-GW	8260B	Toluene	310		ug/L	0.96	2.0	310	
OP02-GW	8260B	Xylenes, Total	520		ug/L	0.46	2.0	520	
OP03-GW	8015D	C6-C10	0.54		mg/L	0.050	0.10	0.54	
OP03-GW	8015D	Diesel Range Organics [C10-C28]	0.97	B *+ *1	mg/L	0.069	0.31	0.97	J+
OP03-GW	8015D	Oil Range Organics (C20-C36)	0.35	J	mg/L	0.34	2.0	0.35	J
OP03-GW	8260B	Benzene	59	H4	ug/L	0.43	1.0	59	J-

BRUNSWICK ANALYTICAL RESULTS SUMMARY
EUROFINS TESTAMERICA REPORT NO. 680-196209-1

Sample Name	Method	Analyte	Lab Result	Lab Flag	Units	MDL	RL	Val Result	Val Flag
OP03-GW	8260B	Ethylbenzene	4.8	H4	ug/L	0.33	1.0	4.8	J-
OP03-GW	8260B	Toluene	8.7	H4	ug/L	0.48	1.0	8.7	J-
OP03-GW	8260B	Xylenes, Total	7.0	H4	ug/L	0.23	1.0	7.0	J-
OP04-GW	8015D	C6-C10	ND		mg/L	0.050	0.10	0.10	U
OP04-GW	8015D	Diesel Range Organics [C10-C28]	0.68	B *+ *1	mg/L	0.10	0.46	0.68	J+
OP04-GW	8015D	Oil Range Organics (C20-C36)	ND		mg/L	0.50	3.0	3.0	U
OP04-GW	8260B	Benzene	0.43	J	ug/L	0.43	1.0	0.43	J
OP04-GW	8260B	Ethylbenzene	0.41	J	ug/L	0.33	1.0	0.41	J
OP04-GW	8260B	Toluene	0.74	J	ug/L	0.48	1.0	0.74	J
OP04-GW	8260B	Xylenes, Total	1.9		ug/L	0.23	1.0	1.9	
PC01-GW	8015D	C6-C10	ND		mg/L	0.050	0.10	0.10	U
PC01-GW	8015D	Diesel Range Organics [C10-C28]	0.26	J	mg/L	0.078	0.34	0.26	J
PC01-GW	8015D	Oil Range Organics (C20-C36)	ND		mg/L	0.38	2.3	2.3	U
PC01-GW	8260B	Benzene	ND		ug/L	0.43	1.0	1.0	U
PC01-GW	8260B	Ethylbenzene	0.59	J	ug/L	0.33	1.0	0.59	J
PC01-GW	8260B	Toluene	ND		ug/L	0.48	1.0	1.0	U
PC01-GW	8260B	Xylenes, Total	2.3		ug/L	0.23	1.0	2.3	
PC02-GW	8015D	C6-C10	ND		mg/L	0.050	0.10	0.10	U
PC02-GW	8015D	Diesel Range Organics [C10-C28]	0.34	J	mg/L	0.085	0.38	0.34	J
PC02-GW	8015D	Oil Range Organics (C20-C36)	ND		mg/L	0.41	2.5	2.5	U
PC02-GW	8260B	Benzene	ND		ug/L	0.43	1.0	1.0	U
PC02-GW	8260B	Ethylbenzene	ND		ug/L	0.33	1.0	1.0	U
PC02-GW	8260B	Toluene	ND		ug/L	0.48	1.0	1.0	U
PC02-GW	8260B	Xylenes, Total	ND		ug/L	0.23	1.0	1.0	U
PC04-GW	8015D	C6-C10	5.1		mg/L	0.50	1.0	5.1	
PC04-GW	8015D	Diesel Range Organics [C10-C28]	1.3	B *+ *1	mg/L	0.081	0.36	1.3	J+
PC04-GW	8015D	Oil Range Organics (C20-C36)	ND		mg/L	0.39	2.4	2.4	U
PC04-GW	8260B	Benzene	270		ug/L	4.3	10	270	
PC04-GW	8260B	Ethylbenzene	120		ug/L	3.3	10	120	
PC04-GW	8260B	Toluene	180		ug/L	4.8	10	180	
PC04-GW	8260B	Xylenes, Total	530		ug/L	2.3	10	530	
PC05-GW	8015D	C6-C10	9.9		mg/L	1.0	2.0	9.9	
PC05-GW	8015D	Diesel Range Organics [C10-C28]	0.96	B *+ *1	mg/L	0.068	0.30	0.96	J+
PC05-GW	8015D	Oil Range Organics (C20-C36)	ND		mg/L	0.33	2.0	2.0	U
PC05-GW	8260B	Benzene	1300		ug/L	22	50	1300	
PC05-GW	8260B	Ethylbenzene	760		ug/L	17	50	760	
PC05-GW	8260B	Toluene	460		ug/L	24	50	460	

BRUNSWICK ANALYTICAL RESULTS SUMMARY
EUROFINS TESTAMERICA REPORT NO. 680-196209-1

Sample Name	Method	Analyte	Lab Result	Lab Flag	Units	MDL	RL	Val Result	Val Flag
PC05-GW	8260B	Xylenes, Total	1400		ug/L	12	50	1400	
Trip Blank	8015D	C6-C10	ND		mg/L	0.050	0.10	0.10	U
Trip Blank	8260B	Benzene	ND		ug/L	0.43	1.0	1.0	U
Trip Blank	8260B	Ethylbenzene	ND		ug/L	0.33	1.0	1.0	U
Trip Blank	8260B	Toluene	ND		ug/L	0.48	1.0	1.0	U
Trip Blank	8260B	Xylenes, Total	ND		ug/L	0.23	1.0	1.0	U

ATTACHMENT 1
SURVEYOR'S DELIVERABLE
(One Page)





JACKSON SURVEYING, INC.
Surveyors and Land Planners

Post Office Box 1031
Brunswick, GA 31521
207 Rose Drive
Brunswick, GA 31520
Phone: (912) 265-3856
brunwicksurveyor.com

March 16, 2021

Georgia Port Authority - Bay Street - Monitoring Wells

Well ID	Latitude (NAD83)	Longitude (NAD83)	Northing (Georgia East)	Easting (Georgia East)	Top of Casing Elevation (NAVD88)	Ground Surface Elevation (NAVD88)
MW 01	31.142199	81.495688	416035.087	866075.450	8.17	6.8
MW 05	31.142011	81.495525	415966.996	866126.749	8.04	7.28
MW 15	31.141946	81.495775	415942.700	866048.794	5.83	N/A
MW OP01	31.142467	81.495390	416133.076	866167.980	8.13	8.4
MW OP02	31.142310	81.495839	416075.181	866027.824	5.93	6.22
MW OP03	31.142229	81.495968	416045.248	865987.771	4.90	5.38
MW OP04	31.142057	81.495203	415984.242	866227.639	7.82	8.27
MW PC01	31.142860	81.495369	416276.096	866173.768	9.45	9.62
MW PC02	31.142747	81.495772	416234.051	866048.012	7.55	7.88
MW PC03	31.142723	81.496207	416224.523	865912.016	7.20	7.6
MW PC04	31.142547	81.496021	416160.873	865970.281	7.08	7.53
MW PC05	31.142734	81.496095	412228.711	865946.861	7.13	7.63
MW GPA07	31.143396	81.496400	416468.973	865849.936	5.52	5.73
MW GPA08	31.143289	81.496088	416430.680	865948.084	7.11	7.42
MW GPA10	31.143019	81.496169	416332.455	865923.139	7.11	7.5
DOCK	31.143203	81.496348	416398.726	865866.641	6.60	N/A

David E. Dowdy, PLS #3395
Jackson Surveying, Inc. GA & FL
Land Surveyors



ATTACHMENT 2

LABORATORY ANALYTICAL DATA PACKAGES AND FINGERPRINT DATA

(114 Pages)



ANALYTICAL REPORT

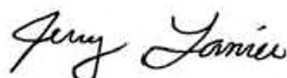
Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

Laboratory Job ID: 680-196209-1
Client Project/Site: Brunswick

For:

Tetra Tech EM Inc.
1955 Evergreen Blvd.
Bldg. 200; Suite 300
Duluth, Georgia 30096

Attn: Jessica Vickers



Authorized for release by:
3/26/2021 5:11:40 PM

Jerry Lanier, Project Manager I
(912)250-0281
Jerry.Lanier@Eurofinset.com

LINKS

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results through
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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Definitions/Glossary

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
H4	Container indicated preservation, however measured pH was >2 at time of analysis. Analysis date was more than 7 days from sampling date, as required for samples not preserved to pH<2.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
680-196209-1	OP02-GW	GW	03/11/21 19:20	03/12/21 11:45	
680-196209-2	MW11-GW	GW	03/11/21 19:55	03/12/21 11:45	
680-196209-3	MW13-GW	GW	03/11/21 20:20	03/12/21 11:45	
680-196209-4	MW18-GW	GW	03/11/21 20:50	03/12/21 11:45	
680-196209-5	GPA09-GW	GW	03/11/21 21:30	03/12/21 11:45	
680-196209-6	GPA01-GW	Water	03/11/21 21:40	03/12/21 11:45	
680-196209-7	GPA11-GW	GW	03/11/21 22:00	03/12/21 11:45	
680-196209-8	GPA05-GW	GW	03/11/21 22:30	03/12/21 11:45	
680-196209-9	PC01-GW	GW	03/11/21 23:25	03/12/21 11:45	
680-196209-10	PC02-GW	GW	03/11/21 23:55	03/12/21 11:45	
680-196209-11	PC04-GW	GW	03/12/21 00:25	03/12/21 11:45	
680-196209-12	PC05-GW	GW	03/12/21 01:00	03/12/21 11:45	
680-196209-13	PC03-GW	Waste	03/12/21 01:15	03/12/21 11:45	
680-196209-14	OP04-GW	GW	03/12/21 01:45	03/12/21 11:45	
680-196209-15	OP01-GW	GW	03/12/21 02:10	03/12/21 11:45	
680-196209-16	OP03-GW	GW	03/12/21 02:35	03/12/21 11:45	
680-196209-17	MW01-GW	GW	03/12/21 03:10	03/12/21 11:45	
680-196209-18	MW01-GW-DUP	GW	03/12/21 03:15	03/12/21 11:45	
680-196209-19	Trip Blank	Water	03/11/21 00:00	03/12/21 11:45	

Case Narrative

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Job ID: 680-196209-1

Laboratory: Eurofins TestAmerica, Savannah

Narrative

Job Narrative 680-196209-1

Comments

No additional comments.

Receipt

The samples were received on 3/12/2021 11:45 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.1° C and 2.5° C.

GC/MS VOA

Method 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 680-660521.

Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: OP02-GW (680-196209-1), MW11-GW (680-196209-2), MW13-GW (680-196209-3), MW18-GW (680-196209-4), GPA09-GW (680-196209-5), PC04-GW (680-196209-11) and PC05-GW (680-196209-12). Elevated reporting limits (RLs) are provided.

Method 8260B: The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed outside the 7-day holding time specified for unpreserved samples but within the 14-day holding time specified for preserved samples: OP03-GW (680-196209-16).

Method 8260B: The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed outside the 7-day holding time specified for unpreserved samples but within the 14-day holding time specified for preserved samples: GPA05-GW (680-196209-8).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method 8015D: The following sample was received with a pH of >2. Analysis was performed within 7 days: GPA05-GW (680-196209-8).

Methods 8015C, 8015D: The method blank for preparation batch 680-661024 and analytical batch 680-661188 contained Diesel Range Organics [C10-C28] above the method detection limit (MDL). Associated samples were not re-analyzed because results were less than one half the reporting limit (RL).

Methods 8015C, 8015D: Diesel Range Organics [C10-C28] was detected above the reporting limit (RL) in the method blank associated with preparation batch 680-660082 and analytical batch 680-660455 as well as in the following samples: PC04-GW (680-196209-11), PC05-GW (680-196209-12), OP04-GW (680-196209-14), OP01-GW (680-196209-15), OP03-GW (680-196209-16), MW01-GW (680-196209-17) and MW01-GW-DUP (680-196209-18). All affected samples were re-extracted and/or re-analyzed outside of holding time. Both sets of data have been reported.

Methods 8015C, 8015D: The laboratory control sample (LCS) for preparation batch 680-660082 and analytical batch 680-660455 recovered outside control limits for the following analytes: Diesel Range Organics [C10-C28]. The associated sample(s) was re-prepared and/or re-analyzed outside holding time. Both sets of data have been reported.

Method 8015B: The following sample contained a petroleum product which most closely resembles # 2 fuel oil: MW11-GW (680-196209-2).

Method 8015B: The following sample contained a petroleum product which most closely resembles unleaded gas GPA01-GW (680-196209-6).

Method 8015B: The following sample contained a petroleum product which most closely resembles Gasoline/ Diesel/#2 Fuel: PC03-GW (680-196209-13).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Case Narrative

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Job ID: 680-196209-1 (Continued)

Laboratory: Eurofins TestAmerica, Savannah (Continued)

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Client Sample ID: OP02-GW

Lab Sample ID: 680-196209-1

Date Collected: 03/11/21 19:20

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	210		2.0	0.86	ug/L			03/20/21 15:19	2
Ethylbenzene	130		2.0	0.66	ug/L			03/20/21 15:19	2
Toluene	310		2.0	0.96	ug/L			03/20/21 15:19	2
Xylenes, Total	520		2.0	0.46	ug/L			03/20/21 15:19	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	87		70 - 130		03/20/21 15:19	2
1,2-Dichloroethane-d4 (Surr)	98		60 - 124		03/20/21 15:19	2
Dibromofluoromethane (Surr)	90		70 - 130		03/20/21 15:19	2
4-Bromofluorobenzene (Surr)	97		70 - 130		03/20/21 15:19	2

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	4.9		1.0	0.50	mg/L			03/18/21 17:22	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	104		70 - 130		03/18/21 17:22	10

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	9.5		0.39	0.088	mg/L		03/17/21 11:40	03/17/21 18:32	1
Oil Range Organics (C20-C36)	1.4	J	2.6	0.43	mg/L		03/17/21 11:40	03/17/21 18:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	80		25 - 128	03/17/21 11:40	03/17/21 18:32	1

Client Sample ID: MW11-GW

Lab Sample ID: 680-196209-2

Date Collected: 03/11/21 19:55

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	770		20	8.6	ug/L			03/20/21 15:42	20
Ethylbenzene	380		20	6.6	ug/L			03/20/21 15:42	20
Toluene	1400		20	9.6	ug/L			03/20/21 15:42	20
Xylenes, Total	1800		20	4.6	ug/L			03/20/21 15:42	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	87		70 - 130		03/20/21 15:42	20
1,2-Dichloroethane-d4 (Surr)	101		60 - 124		03/20/21 15:42	20
Dibromofluoromethane (Surr)	92		70 - 130		03/20/21 15:42	20
4-Bromofluorobenzene (Surr)	101		70 - 130		03/20/21 15:42	20

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	11		2.0	1.0	mg/L			03/18/21 17:44	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	95		70 - 130		03/18/21 17:44	20

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Client Sample ID: MW11-GW

Lab Sample ID: 680-196209-2

Date Collected: 03/11/21 19:55

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8015B - Hydrocarbon Product Identification (GC)

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Qualitative Method	NC				ug/mL		03/17/21 21:01	03/18/21 15:22	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	12		0.30	0.067	mg/L		03/17/21 11:40	03/17/21 18:47	1
Oil Range Organics (C20-C36)	1.4	J	2.0	0.33	mg/L		03/17/21 11:40	03/17/21 18:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	83		25 - 128	03/17/21 11:40	03/17/21 18:47	1

Client Sample ID: MW13-GW

Lab Sample ID: 680-196209-3

Date Collected: 03/11/21 20:20

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	480		20	8.6	ug/L			03/20/21 16:05	20
Ethylbenzene	780		20	6.6	ug/L			03/20/21 16:05	20
Toluene	26		20	9.6	ug/L			03/20/21 16:05	20
Xylenes, Total	2400		20	4.6	ug/L			03/20/21 16:05	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	87		70 - 130		03/20/21 16:05	20
1,2-Dichloroethane-d4 (Surr)	102		60 - 124		03/20/21 16:05	20
Dibromofluoromethane (Surr)	90		70 - 130		03/20/21 16:05	20
4-Bromofluorobenzene (Surr)	97		70 - 130		03/20/21 16:05	20

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	14		2.0	1.0	mg/L			03/18/21 18:06	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	103		70 - 130		03/18/21 18:06	20

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	12		0.34	0.078	mg/L		03/17/21 11:40	03/17/21 19:03	1
Oil Range Organics (C20-C36)	0.88	J	2.3	0.38	mg/L		03/17/21 11:40	03/17/21 19:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	75		25 - 128	03/17/21 11:40	03/17/21 19:03	1

Client Sample ID: MW18-GW

Lab Sample ID: 680-196209-4

Date Collected: 03/11/21 20:50

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	600		20	8.6	ug/L			03/20/21 16:28	20
Ethylbenzene	230		20	6.6	ug/L			03/20/21 16:28	20
Toluene	190		20	9.6	ug/L			03/20/21 16:28	20
Xylenes, Total	630		20	4.6	ug/L			03/20/21 16:28	20

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Client Sample ID: MW18-GW

Lab Sample ID: 680-196209-4

Date Collected: 03/11/21 20:50

Matrix: GW

Date Received: 03/12/21 11:45

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	86		70 - 130		03/20/21 16:28	20
1,2-Dichloroethane-d4 (Surr)	103		60 - 124		03/20/21 16:28	20
Dibromofluoromethane (Surr)	92		70 - 130		03/20/21 16:28	20
4-Bromofluorobenzene (Surr)	98		70 - 130		03/20/21 16:28	20

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	5.9		2.0	1.0	mg/L			03/18/21 18:28	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	101		70 - 130		03/18/21 18:28	20

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	3.0		0.29	0.066	mg/L		03/17/21 11:40	03/17/21 19:18	1
Oil Range Organics (C20-C36)	<0.32		2.0	0.32	mg/L		03/17/21 11:40	03/17/21 19:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	70		25 - 128		03/17/21 11:40	03/17/21 19:18

Client Sample ID: GPA09-GW

Lab Sample ID: 680-196209-5

Date Collected: 03/11/21 21:30

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1200		50	22	ug/L			03/20/21 16:51	50
Ethylbenzene	1200		50	17	ug/L			03/20/21 16:51	50
Toluene	62		50	24	ug/L			03/20/21 16:51	50
Xylenes, Total	1200		50	12	ug/L			03/20/21 16:51	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	88		70 - 130		03/20/21 16:51	50
1,2-Dichloroethane-d4 (Surr)	100		60 - 124		03/20/21 16:51	50
Dibromofluoromethane (Surr)	90		70 - 130		03/20/21 16:51	50
4-Bromofluorobenzene (Surr)	99		70 - 130		03/20/21 16:51	50

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	18		5.0	2.5	mg/L			03/18/21 18:50	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	107		70 - 130		03/18/21 18:50	50

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.6		0.30	0.068	mg/L		03/17/21 11:40	03/17/21 19:33	1
Oil Range Organics (C20-C36)	<0.33		2.0	0.33	mg/L		03/17/21 11:40	03/17/21 19:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	66		25 - 128		03/17/21 11:40	03/17/21 19:33

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Client Sample ID: GPA01-GW

Lab Sample ID: 680-196209-6

Date Collected: 03/11/21 21:40

Matrix: Water

Date Received: 03/12/21 11:45

Method: 8015B - Hydrocarbon Product Identification (GC)

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Qualitative Method	NC				ug/mL		03/17/21 21:01	03/18/21 15:35	1

Client Sample ID: GPA11-GW

Lab Sample ID: 680-196209-7

Date Collected: 03/11/21 22:00

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	7.8		1.0	0.43	ug/L			03/20/21 11:05	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			03/20/21 11:05	1
Toluene	<0.48		1.0	0.48	ug/L			03/20/21 11:05	1
Xylenes, Total	0.41	J	1.0	0.23	ug/L			03/20/21 11:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	90		70 - 130					03/20/21 11:05	1
1,2-Dichloroethane-d4 (Surr)	96		60 - 124					03/20/21 11:05	1
Dibromofluoromethane (Surr)	89		70 - 130					03/20/21 11:05	1
4-Bromofluorobenzene (Surr)	99		70 - 130					03/20/21 11:05	1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<0.050		0.10	0.050	mg/L			03/18/21 16:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	98		70 - 130					03/18/21 16:16	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.18	J	0.31	0.069	mg/L		03/17/21 11:40	03/17/21 19:49	1
Oil Range Organics (C20-C36)	<0.34		2.0	0.34	mg/L		03/17/21 11:40	03/17/21 19:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	71		25 - 128				03/17/21 11:40	03/17/21 19:49	1

Client Sample ID: GPA05-GW

Lab Sample ID: 680-196209-8

Date Collected: 03/11/21 22:30

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	5800	H4	200	86	ug/L			03/20/21 16:59	200
Ethylbenzene	2500	H4	200	66	ug/L			03/20/21 16:59	200
Toluene	<96	H4	200	96	ug/L			03/20/21 16:59	200
Xylenes, Total	6800	H4	200	46	ug/L			03/20/21 16:59	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	87		70 - 130					03/20/21 16:59	200
1,2-Dichloroethane-d4 (Surr)	108		60 - 124					03/20/21 16:59	200
Dibromofluoromethane (Surr)	109		70 - 130					03/20/21 16:59	200
4-Bromofluorobenzene (Surr)	108		70 - 130					03/20/21 16:59	200

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Client Sample ID: GPA05-GW

Lab Sample ID: 680-196209-8

Date Collected: 03/11/21 22:30

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	46		10	5.0	mg/L			03/18/21 19:12	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	104		70 - 130					03/18/21 19:12	100

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	5.0		0.37	0.083	mg/L		03/17/21 11:40	03/17/21 20:04	1
Oil Range Organics (C20-C36)	<0.40		2.5	0.40	mg/L		03/17/21 11:40	03/17/21 20:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	72		25 - 128				03/17/21 11:40	03/17/21 20:04	1

Client Sample ID: PC01-GW

Lab Sample ID: 680-196209-9

Date Collected: 03/11/21 23:25

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.43		1.0	0.43	ug/L			03/20/21 11:28	1
Ethylbenzene	0.59	J	1.0	0.33	ug/L			03/20/21 11:28	1
Toluene	<0.48		1.0	0.48	ug/L			03/20/21 11:28	1
Xylenes, Total	2.3		1.0	0.23	ug/L			03/20/21 11:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91		70 - 130					03/20/21 11:28	1
1,2-Dichloroethane-d4 (Surr)	96		60 - 124					03/20/21 11:28	1
Dibromofluoromethane (Surr)	88		70 - 130					03/20/21 11:28	1
4-Bromofluorobenzene (Surr)	99		70 - 130					03/20/21 11:28	1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<0.050		0.10	0.050	mg/L			03/15/21 21:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		70 - 130					03/15/21 21:34	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.26	J	0.34	0.078	mg/L		03/17/21 11:40	03/17/21 20:19	1
Oil Range Organics (C20-C36)	<0.38		2.3	0.38	mg/L		03/17/21 11:40	03/17/21 20:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	76		25 - 128				03/17/21 11:40	03/17/21 20:19	1

Client Sample ID: PC02-GW

Lab Sample ID: 680-196209-10

Date Collected: 03/11/21 23:55

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.43		1.0	0.43	ug/L			03/20/21 11:52	1

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Client Sample ID: PC02-GW

Lab Sample ID: 680-196209-10

Date Collected: 03/11/21 23:55

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<0.33		1.0	0.33	ug/L			03/20/21 11:52	1
Toluene	<0.48		1.0	0.48	ug/L			03/20/21 11:52	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			03/20/21 11:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	90		70 - 130		03/20/21 11:52	1
1,2-Dichloroethane-d4 (Surr)	95		60 - 124		03/20/21 11:52	1
Dibromofluoromethane (Surr)	88		70 - 130		03/20/21 11:52	1
4-Bromofluorobenzene (Surr)	98		70 - 130		03/20/21 11:52	1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<0.050		0.10	0.050	mg/L			03/15/21 21:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	93		70 - 130		03/15/21 21:56	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.34	J	0.38	0.085	mg/L		03/17/21 11:40	03/17/21 20:35	1
Oil Range Organics (C20-C36)	<0.41		2.5	0.41	mg/L		03/17/21 11:40	03/17/21 20:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	76		25 - 128	03/17/21 11:40	03/17/21 20:35	1

Client Sample ID: PC04-GW

Lab Sample ID: 680-196209-11

Date Collected: 03/12/21 00:25

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	270		10	4.3	ug/L			03/20/21 18:01	10
Ethylbenzene	120		10	3.3	ug/L			03/20/21 18:01	10
Toluene	180		10	4.8	ug/L			03/20/21 18:01	10
Xylenes, Total	530		10	2.3	ug/L			03/20/21 18:01	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	86		70 - 130		03/20/21 18:01	10
1,2-Dichloroethane-d4 (Surr)	103		60 - 124		03/20/21 18:01	10
Dibromofluoromethane (Surr)	88		70 - 130		03/20/21 18:01	10
4-Bromofluorobenzene (Surr)	100		70 - 130		03/20/21 18:01	10

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	5.1		1.0	0.50	mg/L			03/19/21 20:33	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	120		70 - 130		03/19/21 20:33	10

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.3	B ** *1	0.36	0.081	mg/L		03/18/21 07:58	03/20/21 01:58	1

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Client Sample ID: PC04-GW

Lab Sample ID: 680-196209-11

Date Collected: 03/12/21 00:25

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8015D - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (C20-C36)	<0.39		2.4	0.39	mg/L		03/18/21 07:58	03/20/21 01:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	84		25 - 128				03/18/21 07:58	03/20/21 01:58	1

Method: 8015D - Diesel Range Organics (DRO) (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.3	H B	0.35	0.080	mg/L		03/24/21 08:07	03/24/21 23:22	1
Oil Range Organics (C20-C36)	<0.39	H	2.3	0.39	mg/L		03/24/21 08:07	03/24/21 23:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	89		25 - 128				03/24/21 08:07	03/24/21 23:22	1

Client Sample ID: PC05-GW

Lab Sample ID: 680-196209-12

Date Collected: 03/12/21 01:00

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1300		50	22	ug/L			03/20/21 17:14	50
Ethylbenzene	760		50	17	ug/L			03/20/21 17:14	50
Toluene	460		50	24	ug/L			03/20/21 17:14	50
Xylenes, Total	1400		50	12	ug/L			03/20/21 17:14	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	101		70 - 130					03/20/21 17:14	50
<i>1,2-Dichloroethane-d4 (Surr)</i>	120		60 - 124					03/20/21 17:14	50
<i>Dibromofluoromethane (Surr)</i>	108		70 - 130					03/20/21 17:14	50
<i>4-Bromofluorobenzene (Surr)</i>	116		70 - 130					03/20/21 17:14	50

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	9.9		2.0	1.0	mg/L			03/18/21 19:56	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>a,a,a</i> -Trifluorotoluene	104		70 - 130					03/18/21 19:56	20

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.96	B ** *1	0.30	0.068	mg/L		03/18/21 07:58	03/20/21 02:13	1
Oil Range Organics (C20-C36)	<0.33		2.0	0.33	mg/L		03/18/21 07:58	03/20/21 02:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	86		25 - 128				03/18/21 07:58	03/20/21 02:13	1

Method: 8015D - Diesel Range Organics (DRO) (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.65	H B	0.32	0.072	mg/L		03/24/21 08:07	03/24/21 23:38	1
Oil Range Organics (C20-C36)	<0.35	H	2.1	0.35	mg/L		03/24/21 08:07	03/24/21 23:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	87		25 - 128				03/24/21 08:07	03/24/21 23:38	1

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Client Sample ID: PC03-GW

Lab Sample ID: 680-196209-13

Date Collected: 03/12/21 01:15

Matrix: Waste

Date Received: 03/12/21 11:45

Method: 8015B - Hydrocarbon Product Identification (GC)

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Qualitative Method	NC				ug/mL		03/18/21 20:34	03/19/21 15:55	1

Client Sample ID: OP04-GW

Lab Sample ID: 680-196209-14

Date Collected: 03/12/21 01:45

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.43	J	1.0	0.43	ug/L			03/20/21 12:15	1
Ethylbenzene	0.41	J	1.0	0.33	ug/L			03/20/21 12:15	1
Toluene	0.74	J	1.0	0.48	ug/L			03/20/21 12:15	1
Xylenes, Total	1.9		1.0	0.23	ug/L			03/20/21 12:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	86		70 - 130					03/20/21 12:15	1
1,2-Dichloroethane-d4 (Surr)	95		60 - 124					03/20/21 12:15	1
Dibromofluoromethane (Surr)	91		70 - 130					03/20/21 12:15	1
4-Bromofluorobenzene (Surr)	100		70 - 130					03/20/21 12:15	1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<0.050		0.10	0.050	mg/L			03/18/21 16:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	94		70 - 130					03/18/21 16:38	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.68	B ** *1	0.46	0.10	mg/L		03/18/21 07:58	03/20/21 02:29	1
Oil Range Organics (C20-C36)	<0.50		3.0	0.50	mg/L		03/18/21 07:58	03/20/21 02:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	89		25 - 128				03/18/21 07:58	03/20/21 02:29	1

Method: 8015D - Diesel Range Organics (DRO) (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.51	H B	0.39	0.089	mg/L		03/24/21 08:07	03/24/21 23:53	1
Oil Range Organics (C20-C36)	<0.43	H	2.6	0.43	mg/L		03/24/21 08:07	03/24/21 23:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	94		25 - 128				03/24/21 08:07	03/24/21 23:53	1

Client Sample ID: OP01-GW

Lab Sample ID: 680-196209-15

Date Collected: 03/12/21 02:10

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.70	J	1.0	0.43	ug/L			03/20/21 12:38	1
Ethylbenzene	0.65	J	1.0	0.33	ug/L			03/20/21 12:38	1
Toluene	1.4		1.0	0.48	ug/L			03/20/21 12:38	1
Xylenes, Total	3.8		1.0	0.23	ug/L			03/20/21 12:38	1

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Client Sample ID: OP01-GW

Lab Sample ID: 680-196209-15

Date Collected: 03/12/21 02:10

Matrix: GW

Date Received: 03/12/21 11:45

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	90		70 - 130		03/20/21 12:38	1
1,2-Dichloroethane-d4 (Surr)	97		60 - 124		03/20/21 12:38	1
Dibromofluoromethane (Surr)	89		70 - 130		03/20/21 12:38	1
4-Bromofluorobenzene (Surr)	100		70 - 130		03/20/21 12:38	1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<0.050		0.10	0.050	mg/L			03/18/21 17:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	96		70 - 130		03/18/21 17:00	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.23	J B ** *1	0.31	0.070	mg/L		03/18/21 07:58	03/20/21 02:44	1
Oil Range Organics (C20-C36)	<0.34		2.1	0.34	mg/L		03/18/21 07:58	03/20/21 02:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	69		25 - 128	03/18/21 07:58	03/20/21 02:44	1

Method: 8015D - Diesel Range Organics (DRO) (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.29	J H B	0.36	0.082	mg/L		03/24/21 08:07	03/25/21 00:08	1
Oil Range Organics (C20-C36)	<0.40	H	2.4	0.40	mg/L		03/24/21 08:07	03/25/21 00:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	84		25 - 128	03/24/21 08:07	03/25/21 00:08	1

Client Sample ID: OP03-GW

Lab Sample ID: 680-196209-16

Date Collected: 03/12/21 02:35

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	59	H4	1.0	0.43	ug/L			03/20/21 13:01	1
Ethylbenzene	4.8	H4	1.0	0.33	ug/L			03/20/21 13:01	1
Toluene	8.7	H4	1.0	0.48	ug/L			03/20/21 13:01	1
Xylenes, Total	7.0	H4	1.0	0.23	ug/L			03/20/21 13:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	89		70 - 130		03/20/21 13:01	1
1,2-Dichloroethane-d4 (Surr)	95		60 - 124		03/20/21 13:01	1
Dibromofluoromethane (Surr)	84		70 - 130		03/20/21 13:01	1
4-Bromofluorobenzene (Surr)	100		70 - 130		03/20/21 13:01	1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	0.54		0.10	0.050	mg/L			03/19/21 19:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	128		70 - 130		03/19/21 19:27	1

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Client Sample ID: OP03-GW

Lab Sample ID: 680-196209-16

Date Collected: 03/12/21 02:35

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.97	B ** *1	0.31	0.069	mg/L		03/18/21 07:58	03/20/21 02:59	1
Oil Range Organics (C20-C36)	0.35	J	2.0	0.34	mg/L		03/18/21 07:58	03/20/21 02:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	67		25 - 128				03/18/21 07:58	03/20/21 02:59	1

Method: 8015D - Diesel Range Organics (DRO) (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.2	H B	0.30	0.068	mg/L		03/24/21 08:07	03/25/21 00:24	1
Oil Range Organics (C20-C36)	0.41	J H	2.0	0.33	mg/L		03/24/21 08:07	03/25/21 00:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	92		25 - 128				03/24/21 08:07	03/25/21 00:24	1

Client Sample ID: MW01-GW

Lab Sample ID: 680-196209-17

Date Collected: 03/12/21 03:10

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	5400		200	86	ug/L			03/20/21 15:23	200
Ethylbenzene	1000		200	66	ug/L			03/20/21 15:23	200
Toluene	700		200	96	ug/L			03/20/21 15:23	200
Xylenes, Total	3900		200	46	ug/L			03/20/21 15:23	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	85		70 - 130					03/20/21 15:23	200
1,2-Dichloroethane-d4 (Surr)	107		60 - 124					03/20/21 15:23	200
Dibromofluoromethane (Surr)	109		70 - 130					03/20/21 15:23	200
4-Bromofluorobenzene (Surr)	105		70 - 130					03/20/21 15:23	200

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	37		10	5.0	mg/L			03/19/21 19:49	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	105		70 - 130					03/19/21 19:49	100

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	7.6	B ** *1	0.34	0.077	mg/L		03/18/21 07:58	03/20/21 03:14	1
Oil Range Organics (C20-C36)	1.6	J	2.3	0.37	mg/L		03/18/21 07:58	03/20/21 03:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	83		25 - 128				03/18/21 07:58	03/20/21 03:14	1

Method: 8015D - Diesel Range Organics (DRO) (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	5.7	H B	0.32	0.073	mg/L		03/24/21 08:07	03/25/21 00:39	1
Oil Range Organics (C20-C36)	1.1	J H	2.2	0.36	mg/L		03/24/21 08:07	03/25/21 00:39	1

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Client Sample ID: MW01-GW

Lab Sample ID: 680-196209-17

Date Collected: 03/12/21 03:10

Matrix: GW

Date Received: 03/12/21 11:45

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	80		25 - 128	03/24/21 08:07	03/25/21 00:39	1

Client Sample ID: MW01-GW-DUP

Lab Sample ID: 680-196209-18

Date Collected: 03/12/21 03:15

Matrix: GW

Date Received: 03/12/21 11:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	5200		200	86	ug/L			03/20/21 15:47	200
Ethylbenzene	1000		200	66	ug/L			03/20/21 15:47	200
Toluene	710		200	96	ug/L			03/20/21 15:47	200
Xylenes, Total	3800		200	46	ug/L			03/20/21 15:47	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	83		70 - 130					03/20/21 15:47	200
1,2-Dichloroethane-d4 (Surr)	106		60 - 124					03/20/21 15:47	200
Dibromofluoromethane (Surr)	109		70 - 130					03/20/21 15:47	200
4-Bromofluorobenzene (Surr)	111		70 - 130					03/20/21 15:47	200

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	38		10	5.0	mg/L			03/19/21 20:11	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	104		70 - 130					03/19/21 20:11	100

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	6.8	B ** *1	0.39	0.088	mg/L		03/18/21 07:58	03/20/21 03:30	1
Oil Range Organics (C20-C36)	1.6	J	2.6	0.43	mg/L		03/18/21 07:58	03/20/21 03:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	85		25 - 128				03/18/21 07:58	03/20/21 03:30	1

Method: 8015D - Diesel Range Organics (DRO) (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	6.4	H B	0.30	0.068	mg/L		03/24/21 08:07	03/25/21 00:54	1
Oil Range Organics (C20-C36)	1.3	J H	2.0	0.33	mg/L		03/24/21 08:07	03/25/21 00:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	95		25 - 128				03/24/21 08:07	03/25/21 00:54	1

Client Sample ID: Trip Blank

Lab Sample ID: 680-196209-19

Date Collected: 03/11/21 00:00

Matrix: Water

Date Received: 03/12/21 11:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.43		1.0	0.43	ug/L			03/20/21 10:42	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			03/20/21 10:42	1
Toluene	<0.48		1.0	0.48	ug/L			03/20/21 10:42	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			03/20/21 10:42	1

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Client Sample ID: Trip Blank

Lab Sample ID: 680-196209-19

Date Collected: 03/11/21 00:00

Matrix: Water

Date Received: 03/12/21 11:45

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	89		70 - 130		03/20/21 10:42	1
1,2-Dichloroethane-d4 (Surr)	97		60 - 124		03/20/21 10:42	1
Dibromofluoromethane (Surr)	89		70 - 130		03/20/21 10:42	1
4-Bromofluorobenzene (Surr)	99		70 - 130		03/20/21 10:42	1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<0.050		0.10	0.050	mg/L			03/15/21 20:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	95		70 - 130		03/15/21 20:07	1

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-660521/9

Matrix: Water

Analysis Batch: 660521

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.43		1.0	0.43	ug/L			03/20/21 10:10	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			03/20/21 10:10	1
Toluene	<0.48		1.0	0.48	ug/L			03/20/21 10:10	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			03/20/21 10:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	89		70 - 130		03/20/21 10:10	1
1,2-Dichloroethane-d4 (Surr)	94		60 - 124		03/20/21 10:10	1
Dibromofluoromethane (Surr)	86		70 - 130		03/20/21 10:10	1
4-Bromofluorobenzene (Surr)	99		70 - 130		03/20/21 10:10	1

Lab Sample ID: LCS 680-660521/4

Matrix: Water

Analysis Batch: 660521

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	48.9		ug/L		98	70 - 130
Ethylbenzene	50.0	45.6		ug/L		91	70 - 130
Toluene	50.0	45.1		ug/L		90	70 - 130
Xylenes, Total	100	93.6		ug/L		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	90		70 - 130
1,2-Dichloroethane-d4 (Surr)	104		60 - 124
Dibromofluoromethane (Surr)	95		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 680-660521/5

Matrix: Water

Analysis Batch: 660521

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	50.0	49.6		ug/L		99	70 - 130	1	30
Ethylbenzene	50.0	47.9		ug/L		96	70 - 130	5	20
Toluene	50.0	45.7		ug/L		91	70 - 130	1	30
Xylenes, Total	100	96.9		ug/L		97	70 - 130	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	92		70 - 130
1,2-Dichloroethane-d4 (Surr)	100		60 - 124
Dibromofluoromethane (Surr)	91		70 - 130
4-Bromofluorobenzene (Surr)	103		70 - 130

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-660527/9

Matrix: Water

Analysis Batch: 660527

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.43		1.0	0.43	ug/L			03/20/21 10:17	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			03/20/21 10:17	1
Toluene	<0.48		1.0	0.48	ug/L			03/20/21 10:17	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			03/20/21 10:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	81		70 - 130		03/20/21 10:17	1
1,2-Dichloroethane-d4 (Surr)	103		60 - 124		03/20/21 10:17	1
Dibromofluoromethane (Surr)	108		70 - 130		03/20/21 10:17	1
4-Bromofluorobenzene (Surr)	111		70 - 130		03/20/21 10:17	1

Lab Sample ID: LCS 680-660527/4

Matrix: Water

Analysis Batch: 660527

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	49.9		ug/L		100	70 - 130
Ethylbenzene	50.0	48.6		ug/L		97	70 - 130
Toluene	50.0	43.2		ug/L		86	70 - 130
Xylenes, Total	100	102		ug/L		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	87		70 - 130
1,2-Dichloroethane-d4 (Surr)	104		60 - 124
Dibromofluoromethane (Surr)	106		70 - 130
4-Bromofluorobenzene (Surr)	98		70 - 130

Lab Sample ID: LCSD 680-660527/5

Matrix: Water

Analysis Batch: 660527

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	50.0	50.9		ug/L		102	70 - 130	2	30
Ethylbenzene	50.0	50.6		ug/L		101	70 - 130	4	20
Toluene	50.0	42.3		ug/L		85	70 - 130	2	30
Xylenes, Total	100	105		ug/L		105	70 - 130	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	86		70 - 130
1,2-Dichloroethane-d4 (Surr)	103		60 - 124
Dibromofluoromethane (Surr)	108		70 - 130
4-Bromofluorobenzene (Surr)	96		70 - 130

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 680-659651/6

Matrix: Water

Analysis Batch: 659651

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<0.050		0.10	0.050	mg/L			03/15/21 17:33	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	95		70 - 130					03/15/21 17:33	1

Lab Sample ID: LCS 680-659651/4

Matrix: Water

Analysis Batch: 659651

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C10	0.500	0.463		mg/L		93	70 - 148		
Surrogate	%Recovery	LCS Qualifier	Limits						
a,a,a-Trifluorotoluene	103		70 - 130						

Lab Sample ID: LCSD 680-659651/5

Matrix: Water

Analysis Batch: 659651

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
C6-C10	0.500	0.460		mg/L		92	70 - 148	1	50
Surrogate	%Recovery	LCSD Qualifier	Limits						
a,a,a-Trifluorotoluene	102		70 - 130						

Lab Sample ID: MB 680-660201/6

Matrix: Water

Analysis Batch: 660201

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<0.050		0.10	0.050	mg/L			03/18/21 14:27	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	97		70 - 130					03/18/21 14:27	1

Lab Sample ID: LCS 680-660201/4

Matrix: Water

Analysis Batch: 660201

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C10	0.500	0.458		mg/L		92	70 - 148		
Surrogate	%Recovery	LCS Qualifier	Limits						
a,a,a-Trifluorotoluene	105		70 - 130						

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Method: 8015D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: LCSD 680-660201/5

Matrix: Water

Analysis Batch: 660201

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C10	0.500	0.465		mg/L		93	70 - 148	2	50
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
a,a,a-Trifluorotoluene	105		70 - 130						

Lab Sample ID: MB 680-660411/21

Matrix: Water

Analysis Batch: 660411

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<0.050		0.10	0.050	mg/L			03/19/21 19:05	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	97		70 - 130					03/19/21 19:05	1

Lab Sample ID: LCS 680-660411/19

Matrix: Water

Analysis Batch: 660411

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C10	0.500	0.499		mg/L		100	70 - 148		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
a,a,a-Trifluorotoluene	106		70 - 130						

Lab Sample ID: LCSD 680-660411/20

Matrix: Water

Analysis Batch: 660411

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C10	0.500	0.510		mg/L		102	70 - 148	2	50
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
a,a,a-Trifluorotoluene	108		70 - 130						

Method: 8015B - Hydrocarbon Product Identification (GC)

Lab Sample ID: MB 460-765437/1-A

Matrix: Water

Analysis Batch: 765631

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 765437

Analyte	MB Result	MB Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Qualitative Method	NC				ug/mL		03/17/21 21:01	03/18/21 15:09	1

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QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Method: 8015B - Hydrocarbon Product Identification (GC) (Continued)

Lab Sample ID: MB 460-765713/1-A
Matrix: Waste
Analysis Batch: 765834

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 765713

Analyte	MB Result	MB Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Qualitative Method	0.000				ug/mL		03/18/21 20:34	03/19/21 15:17	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 680-659965/1-A
Matrix: Water
Analysis Batch: 659987

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 659965

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	<0.068		0.30	0.068	mg/L		03/17/21 11:40	03/17/21 17:15	1
Oil Range Organics (C20-C36)	<0.33		2.0	0.33	mg/L		03/17/21 11:40	03/17/21 17:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	78		25 - 128	03/17/21 11:40	03/17/21 17:15	1

Lab Sample ID: LCS 680-659965/2-A
Matrix: Water
Analysis Batch: 659987

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 659965

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	4.00	2.71		mg/L		68	21 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	82		25 - 128

Lab Sample ID: LCS 680-659965/4-A
Matrix: Water
Analysis Batch: 659987

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 659965

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Oil Range Organics (C20-C36)	8.00	5.39		mg/L		67	32 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	92		25 - 128

Lab Sample ID: LCSD 680-659965/3-A
Matrix: Water
Analysis Batch: 659987

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 659965

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	4.00	2.29		mg/L		57	21 - 130	17	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	69		25 - 128

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Method: 8015D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 680-659965/5-A

Matrix: Water

Analysis Batch: 659987

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 659965

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Oil Range Organics (C20-C36)			8.00	5.35		mg/L		67	32 - 130	1	50
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
o-Terphenyl	89		25 - 128								

Lab Sample ID: MB 680-660082/1-A

Matrix: Water

Analysis Batch: 660455

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 660082

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.168	J	0.30	0.068	mg/L		03/18/21 07:58	03/19/21 23:41	1
Oil Range Organics (C20-C36)	<0.33		2.0	0.33	mg/L		03/18/21 07:58	03/19/21 23:41	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	74		25 - 128				03/18/21 07:58	03/19/21 23:41	1

Lab Sample ID: LCS 680-660082/2-A

Matrix: Water

Analysis Batch: 660455

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 660082

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]			4.00	12.4	*+	mg/L		310	21 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
o-Terphenyl	250	S1+	25 - 128						

Lab Sample ID: LCS 680-660082/4-A

Matrix: Water

Analysis Batch: 660455

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 660082

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Oil Range Organics (C20-C36)			8.00	5.88		mg/L		73	32 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
o-Terphenyl	90		25 - 128						

Lab Sample ID: LCSD 680-660082/3-A

Matrix: Water

Analysis Batch: 660455

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 660082

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]			4.00	2.62	*1	mg/L		65	21 - 130	130	50
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
o-Terphenyl	78		25 - 128								

Eurofins TestAmerica, Savannah

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Method: 8015D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 680-660082/5-A

Matrix: Water

Analysis Batch: 660455

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 660082

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Oil Range Organics (C20-C36)	8.00	6.22		mg/L		78	32 - 130	6	50
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
o-Terphenyl	89		25 - 128						

Lab Sample ID: MB 680-661024/1-A

Matrix: Water

Analysis Batch: 661188

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 661024

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.113	J	0.30	0.068	mg/L		03/24/21 08:07	03/24/21 20:18	1
Oil Range Organics (C20-C36)	<0.33		2.0	0.33	mg/L		03/24/21 08:07	03/24/21 20:18	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	73		25 - 128				03/24/21 08:07	03/24/21 20:18	1

Lab Sample ID: LCS 680-661024/2-A

Matrix: Water

Analysis Batch: 661188

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 661024

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics [C10-C28]	4.00	2.56		mg/L		64	21 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
o-Terphenyl	74		25 - 128						

Lab Sample ID: LCS 680-661024/3-A

Matrix: Water

Analysis Batch: 661188

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 661024

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Oil Range Organics (C20-C36)	8.00	5.96		mg/L		74	32 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
o-Terphenyl	96		25 - 128						

Lab Sample ID: LCSD 680-661024/4-A

Matrix: Water

Analysis Batch: 661188

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 661024

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Oil Range Organics (C20-C36)	8.00	6.47		mg/L		81	32 - 130	8	50
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
o-Terphenyl	97		25 - 128						

Eurofins TestAmerica, Savannah

QC Association Summary

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

GC/MS VOA

Analysis Batch: 660521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196209-1	OP02-GW	Total/NA	GW	8260B	
680-196209-2	MW11-GW	Total/NA	GW	8260B	
680-196209-3	MW13-GW	Total/NA	GW	8260B	
680-196209-4	MW18-GW	Total/NA	GW	8260B	
680-196209-5	GPA09-GW	Total/NA	GW	8260B	
680-196209-7	GPA11-GW	Total/NA	GW	8260B	
680-196209-9	PC01-GW	Total/NA	GW	8260B	
680-196209-10	PC02-GW	Total/NA	GW	8260B	
680-196209-11	PC04-GW	Total/NA	GW	8260B	
680-196209-12	PC05-GW	Total/NA	GW	8260B	
680-196209-14	OP04-GW	Total/NA	GW	8260B	
680-196209-15	OP01-GW	Total/NA	GW	8260B	
680-196209-16	OP03-GW	Total/NA	GW	8260B	
680-196209-19	Trip Blank	Total/NA	Water	8260B	
MB 680-660521/9	Method Blank	Total/NA	Water	8260B	
LCS 680-660521/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-660521/5	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 660527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196209-8	GPA05-GW	Total/NA	GW	8260B	
680-196209-17	MW01-GW	Total/NA	GW	8260B	
680-196209-18	MW01-GW-DUP	Total/NA	GW	8260B	
MB 680-660527/9	Method Blank	Total/NA	Water	8260B	
LCS 680-660527/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-660527/5	Lab Control Sample Dup	Total/NA	Water	8260B	

GC VOA

Analysis Batch: 659651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196209-9	PC01-GW	Total/NA	GW	8015D	
680-196209-10	PC02-GW	Total/NA	GW	8015D	
680-196209-19	Trip Blank	Total/NA	Water	8015D	
MB 680-659651/6	Method Blank	Total/NA	Water	8015D	
LCS 680-659651/4	Lab Control Sample	Total/NA	Water	8015D	
LCSD 680-659651/5	Lab Control Sample Dup	Total/NA	Water	8015D	

Analysis Batch: 660201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196209-1	OP02-GW	Total/NA	GW	8015D	
680-196209-2	MW11-GW	Total/NA	GW	8015D	
680-196209-3	MW13-GW	Total/NA	GW	8015D	
680-196209-4	MW18-GW	Total/NA	GW	8015D	
680-196209-5	GPA09-GW	Total/NA	GW	8015D	
680-196209-7	GPA11-GW	Total/NA	GW	8015D	
680-196209-8	GPA05-GW	Total/NA	GW	8015D	
680-196209-12	PC05-GW	Total/NA	GW	8015D	
680-196209-14	OP04-GW	Total/NA	GW	8015D	
680-196209-15	OP01-GW	Total/NA	GW	8015D	
MB 680-660201/6	Method Blank	Total/NA	Water	8015D	

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QC Association Summary

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

GC VOA (Continued)

Analysis Batch: 660201 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 680-660201/4	Lab Control Sample	Total/NA	Water	8015D	
LCSD 680-660201/5	Lab Control Sample Dup	Total/NA	Water	8015D	

Analysis Batch: 660411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196209-11	PC04-GW	Total/NA	GW	8015D	
680-196209-16	OP03-GW	Total/NA	GW	8015D	
680-196209-17	MW01-GW	Total/NA	GW	8015D	
680-196209-18	MW01-GW-DUP	Total/NA	GW	8015D	
MB 680-660411/21	Method Blank	Total/NA	Water	8015D	
LCS 680-660411/19	Lab Control Sample	Total/NA	Water	8015D	
LCSD 680-660411/20	Lab Control Sample Dup	Total/NA	Water	8015D	

GC Semi VOA

Prep Batch: 659965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196209-1	OP02-GW	Total/NA	GW	3510C	
680-196209-2	MW11-GW	Total/NA	GW	3510C	
680-196209-3	MW13-GW	Total/NA	GW	3510C	
680-196209-4	MW18-GW	Total/NA	GW	3510C	
680-196209-5	GPA09-GW	Total/NA	GW	3510C	
680-196209-7	GPA11-GW	Total/NA	GW	3510C	
680-196209-8	GPA05-GW	Total/NA	GW	3510C	
680-196209-9	PC01-GW	Total/NA	GW	3510C	
680-196209-10	PC02-GW	Total/NA	GW	3510C	
MB 680-659965/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-659965/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 680-659965/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-659965/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 680-659965/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 659987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196209-1	OP02-GW	Total/NA	GW	8015D	659965
680-196209-2	MW11-GW	Total/NA	GW	8015D	659965
680-196209-3	MW13-GW	Total/NA	GW	8015D	659965
680-196209-4	MW18-GW	Total/NA	GW	8015D	659965
680-196209-5	GPA09-GW	Total/NA	GW	8015D	659965
680-196209-7	GPA11-GW	Total/NA	GW	8015D	659965
680-196209-8	GPA05-GW	Total/NA	GW	8015D	659965
680-196209-9	PC01-GW	Total/NA	GW	8015D	659965
680-196209-10	PC02-GW	Total/NA	GW	8015D	659965
MB 680-659965/1-A	Method Blank	Total/NA	Water	8015D	659965
LCS 680-659965/2-A	Lab Control Sample	Total/NA	Water	8015D	659965
LCS 680-659965/4-A	Lab Control Sample	Total/NA	Water	8015D	659965
LCSD 680-659965/3-A	Lab Control Sample Dup	Total/NA	Water	8015D	659965
LCSD 680-659965/5-A	Lab Control Sample Dup	Total/NA	Water	8015D	659965

QC Association Summary

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

GC Semi VOA

Prep Batch: 660082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196209-11	PC04-GW	Total/NA	GW	3510C	
680-196209-12	PC05-GW	Total/NA	GW	3510C	
680-196209-14	OP04-GW	Total/NA	GW	3510C	
680-196209-15	OP01-GW	Total/NA	GW	3510C	
680-196209-16	OP03-GW	Total/NA	GW	3510C	
680-196209-17	MW01-GW	Total/NA	GW	3510C	
680-196209-18	MW01-GW-DUP	Total/NA	GW	3510C	
MB 680-660082/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-660082/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 680-660082/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-660082/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 680-660082/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 660455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196209-11	PC04-GW	Total/NA	GW	8015D	660082
680-196209-12	PC05-GW	Total/NA	GW	8015D	660082
680-196209-14	OP04-GW	Total/NA	GW	8015D	660082
680-196209-15	OP01-GW	Total/NA	GW	8015D	660082
680-196209-16	OP03-GW	Total/NA	GW	8015D	660082
680-196209-17	MW01-GW	Total/NA	GW	8015D	660082
680-196209-18	MW01-GW-DUP	Total/NA	GW	8015D	660082
MB 680-660082/1-A	Method Blank	Total/NA	Water	8015D	660082
LCS 680-660082/2-A	Lab Control Sample	Total/NA	Water	8015D	660082
LCS 680-660082/4-A	Lab Control Sample	Total/NA	Water	8015D	660082
LCSD 680-660082/3-A	Lab Control Sample Dup	Total/NA	Water	8015D	660082
LCSD 680-660082/5-A	Lab Control Sample Dup	Total/NA	Water	8015D	660082

Prep Batch: 661024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196209-11 - RE	PC04-GW	Total/NA	GW	3510C	
680-196209-12 - RE	PC05-GW	Total/NA	GW	3510C	
680-196209-14 - RE	OP04-GW	Total/NA	GW	3510C	
680-196209-15 - RE	OP01-GW	Total/NA	GW	3510C	
680-196209-16 - RE	OP03-GW	Total/NA	GW	3510C	
680-196209-17 - RE	MW01-GW	Total/NA	GW	3510C	
680-196209-18 - RE	MW01-GW-DUP	Total/NA	GW	3510C	
MB 680-661024/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-661024/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCS 680-661024/3-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-661024/4-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 661188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196209-11 - RE	PC04-GW	Total/NA	GW	8015D	661024
680-196209-12 - RE	PC05-GW	Total/NA	GW	8015D	661024
680-196209-14 - RE	OP04-GW	Total/NA	GW	8015D	661024
680-196209-15 - RE	OP01-GW	Total/NA	GW	8015D	661024
680-196209-16 - RE	OP03-GW	Total/NA	GW	8015D	661024
680-196209-17 - RE	MW01-GW	Total/NA	GW	8015D	661024
680-196209-18 - RE	MW01-GW-DUP	Total/NA	GW	8015D	661024

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QC Association Summary

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

GC Semi VOA (Continued)

Analysis Batch: 661188 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 680-661024/1-A	Method Blank	Total/NA	Water	8015D	661024
LCS 680-661024/2-A	Lab Control Sample	Total/NA	Water	8015D	661024
LCS 680-661024/3-A	Lab Control Sample	Total/NA	Water	8015D	661024
LCSD 680-661024/4-A	Lab Control Sample Dup	Total/NA	Water	8015D	661024

Prep Batch: 765437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196209-2	MW11-GW	Total/NA	GW	3510C	
680-196209-6	GPA01-GW	Total/NA	Water	3510C	
MB 460-765437/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 765631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196209-2	MW11-GW	Total/NA	GW	8015B	765437
680-196209-6	GPA01-GW	Total/NA	Water	8015B	765437
MB 460-765437/1-A	Method Blank	Total/NA	Water	8015B	765437

Prep Batch: 765713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196209-13	PC03-GW	Total/NA	Waste	3580A	
MB 460-765713/1-A	Method Blank	Total/NA	Waste	3580A	

Analysis Batch: 765834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196209-13	PC03-GW	Total/NA	Waste	8015B	765713
MB 460-765713/1-A	Method Blank	Total/NA	Waste	8015B	765713

Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Client Sample ID: OP02-GW

Lab Sample ID: 680-196209-1

Date Collected: 03/11/21 19:20

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	5 mL	5 mL	660521	03/20/21 15:19	P1C	TAL SAV
		Instrument ID: CMSB								
Total/NA	Analysis	8015D		10	5 mL	5 mL	660201	03/18/21 17:22	DBM	TAL SAV
		Instrument ID: CVGWFI1								
Total/NA	Prep	3510C			192.1 mL	1 mL	659965	03/17/21 11:40	TRA	TAL SAV
Total/NA	Analysis	8015D		1			659987	03/17/21 18:32	DBM	TAL SAV
		Instrument ID: CSGAB1								

Client Sample ID: MW11-GW

Lab Sample ID: 680-196209-2

Date Collected: 03/11/21 19:55

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	5 mL	5 mL	660521	03/20/21 15:42	P1C	TAL SAV
		Instrument ID: CMSB								
Total/NA	Analysis	8015D		20	5 mL	5 mL	660201	03/18/21 17:44	DBM	TAL SAV
		Instrument ID: CVGWFI1								
Total/NA	Prep	3510C			50 mL	1 mL	765437	03/17/21 21:01	JMS	TAL EDI
Total/NA	Analysis	8015B		1			765631	03/18/21 15:22	CDC	TAL EDI
		Instrument ID: CBNAGC2								
Total/NA	Prep	3510C			252.3 mL	1 mL	659965	03/17/21 11:40	TRA	TAL SAV
Total/NA	Analysis	8015D		1			659987	03/17/21 18:47	DBM	TAL SAV
		Instrument ID: CSGAB1								

Client Sample ID: MW13-GW

Lab Sample ID: 680-196209-3

Date Collected: 03/11/21 20:20

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	5 mL	5 mL	660521	03/20/21 16:05	P1C	TAL SAV
		Instrument ID: CMSB								
Total/NA	Analysis	8015D		20	5 mL	5 mL	660201	03/18/21 18:06	DBM	TAL SAV
		Instrument ID: CVGWFI1								
Total/NA	Prep	3510C			218.5 mL	1 mL	659965	03/17/21 11:40	TRA	TAL SAV
Total/NA	Analysis	8015D		1			659987	03/17/21 19:03	DBM	TAL SAV
		Instrument ID: CSGAB1								

Client Sample ID: MW18-GW

Lab Sample ID: 680-196209-4

Date Collected: 03/11/21 20:50

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	5 mL	5 mL	660521	03/20/21 16:28	P1C	TAL SAV
		Instrument ID: CMSB								
Total/NA	Analysis	8015D		20	5 mL	5 mL	660201	03/18/21 18:28	DBM	TAL SAV
		Instrument ID: CVGWFI1								

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Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Client Sample ID: MW18-GW

Lab Sample ID: 680-196209-4

Date Collected: 03/11/21 20:50

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			256 mL	1 mL	659965	03/17/21 11:40	TRA	TAL SAV
Total/NA	Analysis	8015D		1			659987	03/17/21 19:18	DBM	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: GPA09-GW

Lab Sample ID: 680-196209-5

Date Collected: 03/11/21 21:30

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	5 mL	5 mL	660521	03/20/21 16:51	P1C	TAL SAV
Instrument ID: CMSB										
Total/NA	Analysis	8015D		50	5 mL	5 mL	660201	03/18/21 18:50	DBM	TAL SAV
Instrument ID: CVGWFI1										
Total/NA	Prep	3510C			251.8 mL	1 mL	659965	03/17/21 11:40	TRA	TAL SAV
Total/NA	Analysis	8015D		1			659987	03/17/21 19:33	DBM	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: GPA01-GW

Lab Sample ID: 680-196209-6

Date Collected: 03/11/21 21:40

Matrix: Water

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			70 mL	1 mL	765437	03/17/21 21:01	JMS	TAL EDI
Total/NA	Analysis	8015B		1			765631	03/18/21 15:35	CDC	TAL EDI
Instrument ID: CBNAGC2										

Client Sample ID: GPA11-GW

Lab Sample ID: 680-196209-7

Date Collected: 03/11/21 22:00

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	660521	03/20/21 11:05	P1C	TAL SAV
Instrument ID: CMSB										
Total/NA	Analysis	8015D		1	5 mL	5 mL	660201	03/18/21 16:16	DBM	TAL SAV
Instrument ID: CVGWFI1										
Total/NA	Prep	3510C			245.7 mL	1 mL	659965	03/17/21 11:40	TRA	TAL SAV
Total/NA	Analysis	8015D		1			659987	03/17/21 19:49	DBM	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: GPA05-GW

Lab Sample ID: 680-196209-8

Date Collected: 03/11/21 22:30

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		200	5 mL	5 mL	660527	03/20/21 16:59	P1C	TAL SAV
Instrument ID: CMSO2										

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Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Client Sample ID: GPA05-GW

Lab Sample ID: 680-196209-8

Date Collected: 03/11/21 22:30

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015D		100	5 mL	5 mL	660201	03/18/21 19:12	DBM	TAL SAV
Total/NA	Prep	3510C			203.8 mL	1 mL	659965	03/17/21 11:40	TRA	TAL SAV
Total/NA	Analysis	8015D		1			659987	03/17/21 20:04	DBM	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: PC01-GW

Lab Sample ID: 680-196209-9

Date Collected: 03/11/21 23:25

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	660521	03/20/21 11:28	P1C	TAL SAV
Instrument ID: CMSB										
Total/NA	Analysis	8015D		1	5 mL	5 mL	659651	03/15/21 21:34	DBM	TAL SAV
Instrument ID: CVGWFI1										
Total/NA	Prep	3510C			217.8 mL	1 mL	659965	03/17/21 11:40	TRA	TAL SAV
Total/NA	Analysis	8015D		1			659987	03/17/21 20:19	DBM	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: PC02-GW

Lab Sample ID: 680-196209-10

Date Collected: 03/11/21 23:55

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	660521	03/20/21 11:52	P1C	TAL SAV
Instrument ID: CMSB										
Total/NA	Analysis	8015D		1	5 mL	5 mL	659651	03/15/21 21:56	DBM	TAL SAV
Instrument ID: CVGWFI1										
Total/NA	Prep	3510C			199.7 mL	1 mL	659965	03/17/21 11:40	TRA	TAL SAV
Total/NA	Analysis	8015D		1			659987	03/17/21 20:35	DBM	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: PC04-GW

Lab Sample ID: 680-196209-11

Date Collected: 03/12/21 00:25

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	5 mL	5 mL	660521	03/20/21 18:01	P1C	TAL SAV
Instrument ID: CMSB										
Total/NA	Analysis	8015D		10	5 mL	5 mL	660411	03/19/21 20:33	DBM	TAL SAV
Instrument ID: CVGWFI1										
Total/NA	Prep	3510C			209.6 mL	1 mL	660082	03/18/21 07:58	TRA	TAL SAV
Total/NA	Analysis	8015D		1			660455	03/20/21 01:58	JCK	TAL SAV
Instrument ID: CSGAB1										
Total/NA	Prep	3510C	RE		212.8 mL	1 mL	661024	03/24/21 08:07	TRA	TAL SAV
Total/NA	Analysis	8015D	RE	1			661188	03/24/21 23:22	JCK	TAL SAV
Instrument ID: CSGAB1										

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Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Client Sample ID: PC05-GW

Lab Sample ID: 680-196209-12

Date Collected: 03/12/21 01:00

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	5 mL	5 mL	660521	03/20/21 17:14	P1C	TAL SAV
		Instrument ID: CMSB								
Total/NA	Analysis	8015D		20	5 mL	5 mL	660201	03/18/21 19:56	DBM	TAL SAV
		Instrument ID: CVGWFI1								
Total/NA	Prep	3510C			248.8 mL	1 mL	660082	03/18/21 07:58	TRA	TAL SAV
Total/NA	Analysis	8015D		1			660455	03/20/21 02:13	JCK	TAL SAV
		Instrument ID: CSGAB1								
Total/NA	Prep	3510C	RE		236.9 mL	1 mL	661024	03/24/21 08:07	TRA	TAL SAV
Total/NA	Analysis	8015D	RE	1			661188	03/24/21 23:38	JCK	TAL SAV
		Instrument ID: CSGAB1								

Client Sample ID: PC03-GW

Lab Sample ID: 680-196209-13

Date Collected: 03/12/21 01:15

Matrix: Waste

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3580A			1.00 g	10 mL	765713	03/18/21 20:34	JMS	TAL EDI
Total/NA	Analysis	8015B		1			765834	03/19/21 15:55	CDC	TAL EDI
		Instrument ID: CBNAGC2								

Client Sample ID: OP04-GW

Lab Sample ID: 680-196209-14

Date Collected: 03/12/21 01:45

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	660521	03/20/21 12:15	P1C	TAL SAV
		Instrument ID: CMSB								
Total/NA	Analysis	8015D		1	5 mL	5 mL	660201	03/18/21 16:38	DBM	TAL SAV
		Instrument ID: CVGWFI1								
Total/NA	Prep	3510C			164 mL	1 mL	660082	03/18/21 07:58	TRA	TAL SAV
Total/NA	Analysis	8015D		1			660455	03/20/21 02:29	JCK	TAL SAV
		Instrument ID: CSGAB1								
Total/NA	Prep	3510C	RE		192 mL	1 mL	661024	03/24/21 08:07	TRA	TAL SAV
Total/NA	Analysis	8015D	RE	1			661188	03/24/21 23:53	JCK	TAL SAV
		Instrument ID: CSGAB1								

Client Sample ID: OP01-GW

Lab Sample ID: 680-196209-15

Date Collected: 03/12/21 02:10

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	660521	03/20/21 12:38	P1C	TAL SAV
		Instrument ID: CMSB								
Total/NA	Analysis	8015D		1	5 mL	5 mL	660201	03/18/21 17:00	DBM	TAL SAV
		Instrument ID: CVGWFI1								

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Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Client Sample ID: OP01-GW

Lab Sample ID: 680-196209-15

Date Collected: 03/12/21 02:10

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			242.8 mL	1 mL	660082	03/18/21 07:58	TRA	TAL SAV
Total/NA	Analysis	8015D		1			660455	03/20/21 02:44	JCK	TAL SAV
Instrument ID: CSGAB1										
Total/NA	Prep	3510C	RE		207.8 mL	1 mL	661024	03/24/21 08:07	TRA	TAL SAV
Total/NA	Analysis	8015D	RE	1			661188	03/25/21 00:08	JCK	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: OP03-GW

Lab Sample ID: 680-196209-16

Date Collected: 03/12/21 02:35

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	660521	03/20/21 13:01	P1C	TAL SAV
Instrument ID: CMSB										
Total/NA	Analysis	8015D		1	5 mL	5 mL	660411	03/19/21 19:27	DBM	TAL SAV
Instrument ID: CVGWFI1										
Total/NA	Prep	3510C			245.1 mL	1 mL	660082	03/18/21 07:58	TRA	TAL SAV
Total/NA	Analysis	8015D		1			660455	03/20/21 02:59	JCK	TAL SAV
Instrument ID: CSGAB1										
Total/NA	Prep	3510C	RE		250.5 mL	1 mL	661024	03/24/21 08:07	TRA	TAL SAV
Total/NA	Analysis	8015D	RE	1			661188	03/25/21 00:24	JCK	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: MW01-GW

Lab Sample ID: 680-196209-17

Date Collected: 03/12/21 03:10

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		200	5 mL	5 mL	660527	03/20/21 15:23	P1C	TAL SAV
Instrument ID: CMSO2										
Total/NA	Analysis	8015D		100	5 mL	5 mL	660411	03/19/21 19:49	DBM	TAL SAV
Instrument ID: CVGWFI1										
Total/NA	Prep	3510C			221 mL	1 mL	660082	03/18/21 07:58	TRA	TAL SAV
Total/NA	Analysis	8015D		1			660455	03/20/21 03:14	JCK	TAL SAV
Instrument ID: CSGAB1										
Total/NA	Prep	3510C	RE		231.3 mL	1 mL	661024	03/24/21 08:07	TRA	TAL SAV
Total/NA	Analysis	8015D	RE	1			661188	03/25/21 00:39	JCK	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: MW01-GW-DUP

Lab Sample ID: 680-196209-18

Date Collected: 03/12/21 03:15

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		200	5 mL	5 mL	660527	03/20/21 15:47	P1C	TAL SAV
Instrument ID: CMSO2										

Eurofins TestAmerica, Savannah

Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Client Sample ID: MW01-GW-DUP

Lab Sample ID: 680-196209-18

Date Collected: 03/12/21 03:15

Matrix: GW

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015D		100	5 mL	5 mL	660411	03/19/21 20:11	DBM	TAL SAV
Total/NA	Prep	3510C			192.9 mL	1 mL	660082	03/18/21 07:58	TRA	TAL SAV
Total/NA	Analysis	8015D		1			660455	03/20/21 03:30	JCK	TAL SAV
		Instrument ID: CSGAB1								
Total/NA	Prep	3510C	RE		249.5 mL	1 mL	661024	03/24/21 08:07	TRA	TAL SAV
Total/NA	Analysis	8015D	RE	1			661188	03/25/21 00:54	JCK	TAL SAV
		Instrument ID: CSGAB1								

Client Sample ID: Trip Blank

Lab Sample ID: 680-196209-19

Date Collected: 03/11/21 00:00

Matrix: Water

Date Received: 03/12/21 11:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	660521	03/20/21 10:42	P1C	TAL SAV
		Instrument ID: CMSB								
Total/NA	Analysis	8015D		1	5 mL	5 mL	659651	03/15/21 20:07	DBM	TAL SAV
		Instrument ID: CVGWFD1								

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Laboratory: Eurofins TestAmerica, Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Florida	NELAP	E87052	06-30-21

Laboratory: Eurofins TestAmerica, Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0200	09-30-22
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	12-31-21
Georgia	State	12028 (NJ)	07-01-21
Massachusetts	State	M-NJ312	06-30-21
New Jersey	NELAP	12028	06-30-21
New York	NELAP	11452	04-01-21
Pennsylvania	NELAP	68-00522	02-28-22
Rhode Island	State	LAO00132	12-30-21
USDA	US Federal Programs	P330-20-00244	11-03-23

Method Summary

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196209-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8015D	Gasoline Range Organics (GRO) (GC)	SW846	TAL SAV
8015B	Hydrocarbon Product Identification (GC)	SW846	TAL EDI
8015D	Diesel Range Organics (DRO) (GC)	SW846	TAL SAV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL EDI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL SAV
3580A	Waste Dilution	SW846	TAL EDI
5030B	Purge and Trap	SW846	TAL SAV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Chain of Custody Record

513126

Environment Testing
TestAmerica

Address:

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact		Project Manager: <u>John Smiley</u>		Date: <u>3/12</u>		COC No: <u>1 of 2</u> COCs	
Company Name: <u>Tetra Tech</u>		Tel/Email: <u>662-681-5727</u>		Carrier:		Sampler:	
Address: <u>1955 Evergreen Blvd</u>		City/State/Zip: <u>Duluth GA 30096</u>		Lab Contact: <u>Petro fingerprinting</u>		For Lab Use Only:	
Phone:		Fax:		Analysis Turnaround Time		Walk-in Client:	
Project Name: <u>Biomass</u>		Site:		P O #		Lab Sampling:	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes:
OP02-GW		3/11	1920	G	GW	8	
MW11-GW			1955			9	
MW13-GW			2020			8	
MW18-GW			2050			8	
GPA09-GW			2130			8	
GPA01-GW			2140			1	
GPA11-GW			2200			8	
GPA05-GW			2230			8	
PC01-GW			2325			8	
PC02-GW			2355			8	
PC04-GW		3/12	0025			8	
PC05-GW			0100			8	
Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Other							
Possible Hazard Identification: Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.							
<input type="checkbox"/> Non-Hazard <input checked="" type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown							
Special Instructions/QC Requirements & Comments: <u>Hold "petro fingerprinting" samples for further instructions</u>							
Custody Seal No.:		Cooler Temp (°C):		Obs'd:		Therm ID No.:	
Relinquished by: <u>[Signature]</u>		Company: <u>Tetra Tech</u>		Date/Time: <u>3/12 1145</u>		Company: <u>CSBanda</u>	
Relinquished by:		Company:		Date/Time:		Company:	
Relinquished by:		Company:		Date/Time:		Company:	



680-196209 Chain of Custody



Chain of Custody Record

[illegible]

Login Sample Receipt Checklist

Client: Tetra Tech EM Inc.

Job Number: 680-196209-1

Login Number: 196209

List Source: Eurofins TestAmerica, Savannah

List Number: 1

Creator: Banda, Christy S

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Tetra Tech EM Inc.

Job Number: 680-196209-1

Login Number: 196209

List Source: Eurofins TestAmerica, Edison

List Number: 2

List Creation: 03/16/21 11:30 AM

Creator: Armbruster, Chris

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	1430342
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Method 8015B – ID

Hydrocarbon Product Identification
(GC) by Method 8015B

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Edison Job No.: 680-196209-1
SDG No.: _____
Lab File ID: 2F010198.D Lab Sample ID: MB 460-765437/1-A
Matrix: Water Date Extracted: 03/17/2021 21:01
Instrument ID: CBNAGC2 Date Analyzed: 03/18/2021 15:09
Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
MW11-GW	680-196209-2	2F010199.D	03/18/2021 15:22
GPA01-GW	680-196209-6	2F010200.D	03/18/2021 15:35

FORM IV
DIESEL RANGE ORGANICS METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Edison Job No.: 680-196209-1
SDG No.: _____
Lab File ID: 2F010236.D Lab Sample ID: MB 460-765713/1-A
Matrix: Waste Date Extracted: 03/18/2021 20:34
Instrument ID: CBNAGC2 Date Analyzed: 03/19/2021 15:17
Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PC03-GW	680-196209-13	2F010239.D	03/19/2021 15:55

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 680-196209-1
SDG No.: _____
Client Sample ID: MW11-GW Lab Sample ID: 680-196209-2
Matrix: GW Lab File ID: 2F010199.D
Analysis Method: 8015B Date Collected: 03/11/2021 19:55
Extraction Method: 3510C Date Extracted: 03/17/2021 21:01
Sample wt/vol: 50 (mL) Date Analyzed: 03/18/2021 15:22
Con. Extract Vol.: 1 (mL) Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: Rtx-Mineral Oil ID: 0.32 (mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 765631 Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	NONE	NONE
STL00945	Qualitative Method	NC			

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210318-125614.b\2F010199.D
Lims ID: 680-196209-I-2-A
Client ID: MW11-GW
Sample Type: Client
Inject. Date: 18-Mar-2021 15:22:21 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0125614-004
Operator ID: Instrument ID: CBNAGC2
Method: \\chromfs\Edison\ChromData\CBNAGC2\20210318-125614.b\DRO2F.m
Limit Group: GC 8015 DRO ICAL
Last Update: 19-Mar-2021 14:10:08 Calib Date: 23-Oct-2020 14:16:38
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAGC2\20201023-118916.b\2F001700.D
Column 1 : Rtx Mineral Oil (0.32 mm) Det: GC FID1A
Process Host: CTX1630

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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9 Qualitative Method

5.892	5.895	-0.003	36859	NC
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QC Flag Legend

Processing Flags

NC - Not Calibrated

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210318-125614.b\2F010199.D

Injection Date: 18-Mar-2021 15:22:21

Instrument ID: CBNAGC2

Lims ID: 680-196209-I-2-A

Lab Sample ID: 460-196209-2

Client ID: MW11-GW

Operator ID:

ALS Bottle#:

4

Worklist Smp#:

4

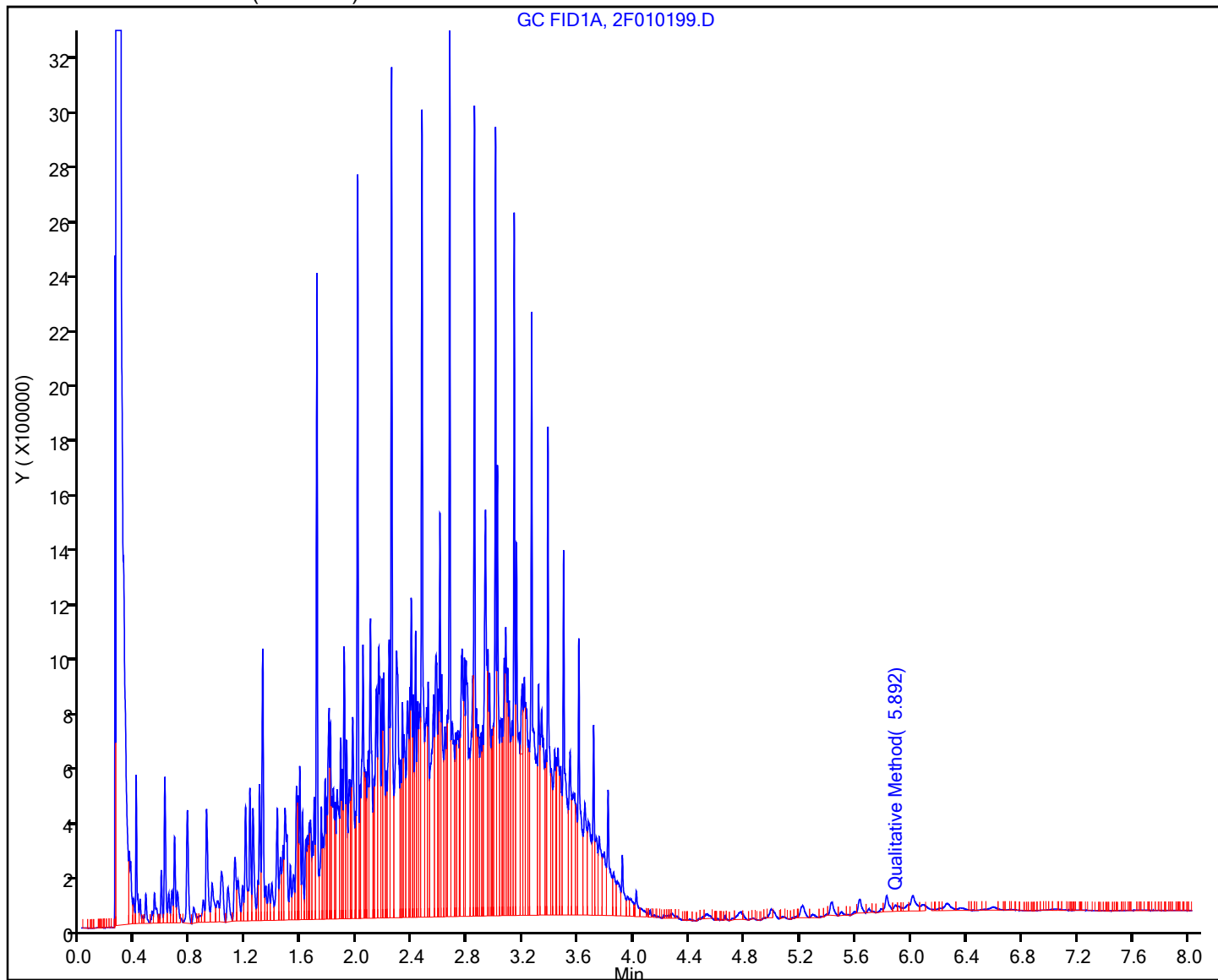
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: DRO2F

Limit Group: GC 8015 DRO ICAL

Column: Rtx Mineral Oil (0.32 mm)



FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 680-196209-1
SDG No.: _____
Client Sample ID: GPA01-GW Lab Sample ID: 680-196209-6
Matrix: Water Lab File ID: 2F010200.D
Analysis Method: 8015B Date Collected: 03/11/2021 21:40
Extraction Method: 3510C Date Extracted: 03/17/2021 21:01
Sample wt/vol: 70 (mL) Date Analyzed: 03/18/2021 15:35
Con. Extract Vol.: 1 (mL) Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: Rtx-Mineral Oil ID: 0.32 (mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 765631 Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	NONE	NONE
STL00945	Qualitative Method	NC			

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210318-125614.b\2F010200.D
Lims ID: 680-196209-A-6-A
Client ID: GPA01-GW
Sample Type: Client
Inject. Date: 18-Mar-2021 15:35:11 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0125614-005
Operator ID: Instrument ID: CBNAGC2
Method: \\chromfs\Edison\ChromData\CBNAGC2\20210318-125614.b\DRO2F.m
Limit Group: GC 8015 DRO ICAL
Last Update: 19-Mar-2021 14:10:08 Calib Date: 23-Oct-2020 14:16:38
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAGC2\20201023-118916.b\2F001700.D
Column 1 : Rtx Mineral Oil (0.32 mm) Det: GC FID1A
Process Host: CTX1630

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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9 Qualitative Method

5.887	5.895	-0.008	39153	NC
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QC Flag Legend

Processing Flags

NC - Not Calibrated

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210318-125614.b\2F010200.D

Injection Date: 18-Mar-2021 15:35:11

Instrument ID: CBNAGC2

Lims ID: 680-196209-A-6-A

Lab Sample ID: 460-196209-6

Client ID: GPA01-GW

Operator ID:

ALS Bottle#:

5

Worklist Smp#:

5

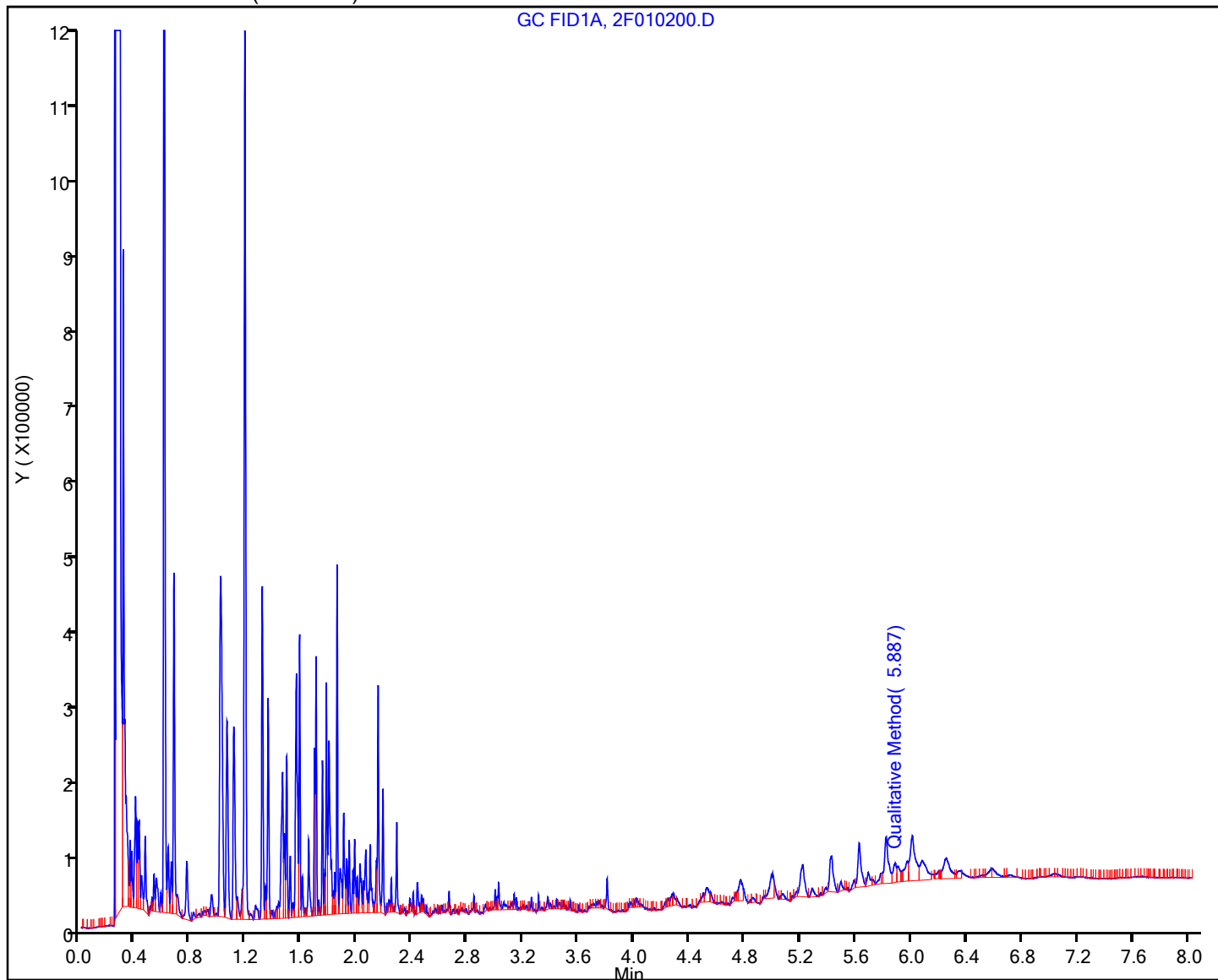
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: DRO2F

Limit Group: GC 8015 DRO ICAL

Column: Rtx Mineral Oil (0.32 mm)



FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 680-196209-1
SDG No.: _____
Client Sample ID: PC03-GW Lab Sample ID: 680-196209-13
Matrix: Waste Lab File ID: 2F010239.D
Analysis Method: 8015B Date Collected: 03/12/2021 01:15
Extraction Method: 3580A Date Extracted: 03/18/2021 20:34
Sample wt/vol: 1.00(g) Date Analyzed: 03/19/2021 15:55
Con. Extract Vol.: 10(mL) Dilution Factor: 1
Injection Volume: 1(uL) GC Column: Rtx-Mineral Oil ID: 0.32(mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 765834 Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	NONE	NONE
STL00945	Qualitative Method	NC			

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210319-125668.b\2F010239.D
Lims ID: 680-196209-A-13-A
Client ID: PC03-GW
Sample Type: Client
Inject. Date: 19-Mar-2021 15:55:36 ALS Bottle#: 24 Worklist Smp#: 30
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0125668-030
Operator ID: Instrument ID: CBNAGC2
Method: \\chromfs\Edison\ChromData\CBNAGC2\20210319-125668.b\DRO2F.m
Limit Group: GC 8015 DRO ICAL
Last Update: 20-Mar-2021 12:18:00 Calib Date: 23-Oct-2020 14:16:38
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAGC2\20201023-118916.b\2F001700.D
Column 1 : Rtx Mineral Oil (0.32 mm) Det: GC FID1A
Process Host: CTX1668

First Level Reviewer: hamzik

Date: 20-Mar-2021 12:20:52

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
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9 Qualitative Method

5.898	5.895	0.003	4393	NC
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QC Flag Legend

Processing Flags

NC - Not Calibrated

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210319-125668.b\2F010239.D

Injection Date: 19-Mar-2021 15:55:36

Instrument ID: CBNAGC2

Lims ID: 680-196209-A-13-A

Lab Sample ID: 460-196209-13

Client ID: PC03-GW

Operator ID:

ALS Bottle#: 24

Worklist Smp#: 30

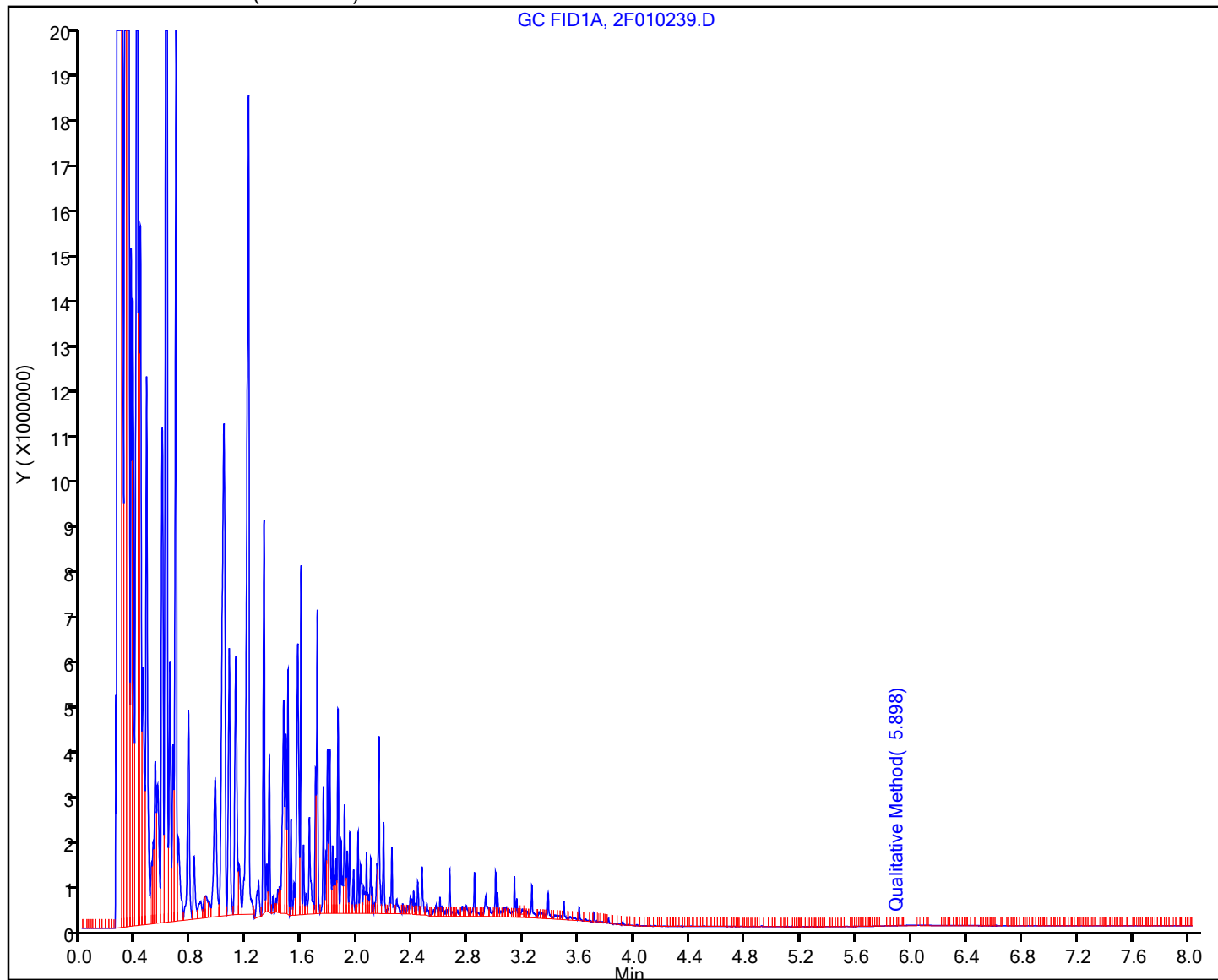
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: DRO2F

Limit Group: GC 8015 DRO ICAL

Column: Rtx Mineral Oil (0.32 mm)



FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 680-196209-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: MB 460-765437/1-A
Matrix: Water Lab File ID: 2F010198.D
Analysis Method: 8015B Date Collected: _____
Extraction Method: 3510C Date Extracted: 03/17/2021 21:01
Sample wt/vol: 1000 (mL) Date Analyzed: 03/18/2021 15:09
Con. Extract Vol.: 1 (mL) Dilution Factor: 1
Injection Volume: 1 (uL) GC Column: Rtx-Mineral Oil ID: 0.32 (mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 765631 Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	NONE	NONE
STL00945	Qualitative Method	NC			

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210318-125614.b\2F010198.D
 Lims ID: MB 460-765437/1-A
 Client ID:
 Sample Type: MB
 Inject. Date: 18-Mar-2021 15:09:38 ALS Bottle#: 3 Worklist Smp#: 3
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0125614-003
 Operator ID: Instrument ID: CBNAGC2
 Method: \\chromfs\Edison\ChromData\CBNAGC2\20210318-125614.b\DRO2F.m
 Limit Group: GC 8015 DRO ICAL
 Last Update: 19-Mar-2021 14:10:08 Calib Date: 23-Oct-2020 14:16:38
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Edison\ChromData\CBNAGC2\20201023-118916.b\2F001700.D
 Column 1: Rtx Mineral Oil (0.32 mm) Det: GC FID1A
 Process Host: CTX1630

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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1 n-Decane	0.768	0.770	-0.002	1075	0.1113	
A 2 #2 Diesel Fuel	2.501	(0.646-4.356)		1538816	NC	
A 3 C10-C28	2.504	(0.670-4.337)		314137	26.7	
\$ 4 o-Terphenyl	3.198	3.192	0.006	2561	0.1875	
A 5 C10-C44	3.212	(0.670-5.753)		850626	65.6	
6 n-Octacosane	4.245	4.237	0.008	11029	0.7763	
A 7 C28-C44	4.945	(4.137-5.753)		585325	NC	
8 Tetratetracontane	5.672	5.653	0.019	82627	5.16	
9 Qualitative Method	5.869	5.895	-0.026	104495	NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210318-125614.b\2F010198.D

Injection Date: 18-Mar-2021 15:09:38

Instrument ID: CBNAGC2

Lims ID: MB 460-765437/1-A

Client ID:

Operator ID:

ALS Bottle#:

Worklist Smp#: 3

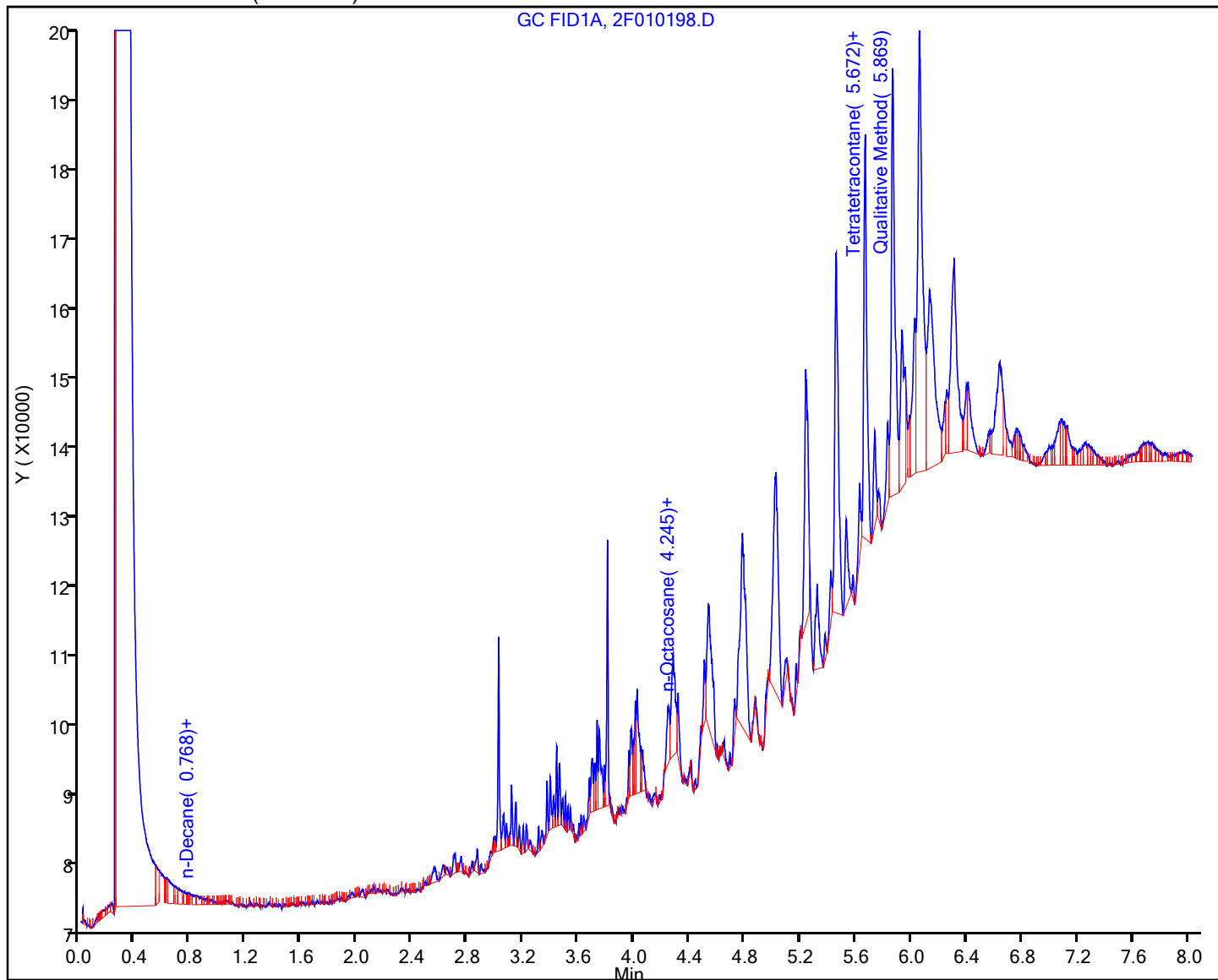
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: DRO2F

Limit Group: GC 8015 DRO ICAL

Column: Rtx Mineral Oil (0.32 mm)



Eurofins TestAmerica, Edison
Recovery Report

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210318-125614.b\2F010198.D
Lims ID: MB 460-765437/1-A
Client ID:
Sample Type: MB
Inject. Date: 18-Mar-2021 15:09:38 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0125614-003
Operator ID: Instrument ID: CBNAGC2
Method: \\chromfs\Edison\ChromData\CBNAGC2\20210318-125614.b\DRO2F.m
Limit Group: GC 8015 DRO ICAL
Last Update: 19-Mar-2021 14:10:08 Calib Date: 23-Oct-2020 14:16:38
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAGC2\20201023-118916.b\2F001700.D
Column 1 : Rtx Mineral Oil (0.32 mm) Det: GC FID1A
Process Host: CTX1630

Compound	Amount Added	Amount Recovered	% Rec.
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FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 680-196209-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: MB 460-765713/1-A
Matrix: Waste Lab File ID: 2F010236.D
Analysis Method: 8015B Date Collected: _____
Extraction Method: 3580A Date Extracted: 03/18/2021 20:34
Sample wt/vol: 1.00(g) Date Analyzed: 03/19/2021 15:17
Con. Extract Vol.: 10(mL) Dilution Factor: 1
Injection Volume: 1(uL) GC Column: Rtx-Mineral Oil ID: 0.32(mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 765834 Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	NONE	NONE
STL00945	Qualitative Method	0.000			

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210319-125668.b\2F010236.D
Lims ID: MB 460-765713/1-A
Client ID:
Sample Type: MB
Inject. Date: 19-Mar-2021 15:17:37 ALS Bottle#: 21 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0125668-027
Operator ID: Instrument ID: CBNAGC2
Method: \\chromfs\Edison\ChromData\CBNAGC2\20210319-125668.b\DRO2F.m
Limit Group: GC 8015 DRO ICAL
Last Update: 20-Mar-2021 12:18:00 Calib Date: 23-Oct-2020 14:16:38
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAGC2\20201023-118916.b\2F001700.D
Column 1 : Rtx Mineral Oil (0.32 mm) Det: GC FID1A
Process Host: CTX1668

First Level Reviewer: hamzik

Date: 20-Mar-2021 12:18:12

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
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Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210319-125668.b\2F010236.D

Injection Date: 19-Mar-2021 15:17:37

Instrument ID: CBNAGC2

Lims ID: MB 460-765713/1-A

Client ID:

Operator ID:

ALS Bottle#:

Worklist Smp#: 27

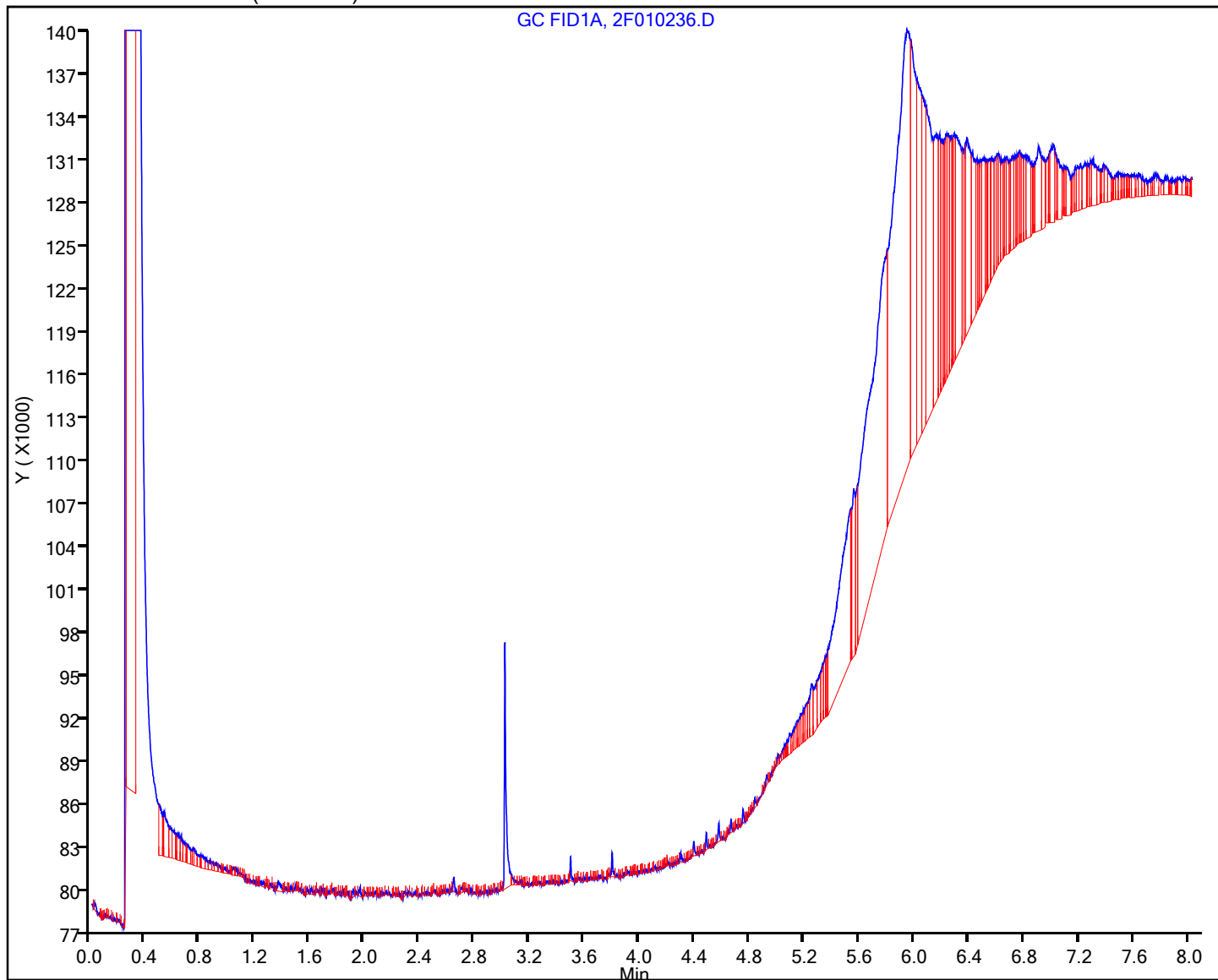
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: DRO2F

Limit Group: GC 8015 DRO ICAL

Column: Rtx Mineral Oil (0.32 mm)



Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210319-125668.b\2F010236.D

Injection Date: 19-Mar-2021 15:17:37

Instrument ID: CBNAGC2

Lims ID: MB 460-765713/1-A

Client ID:

Operator ID:

ALS Bottle#:

21

Worklist Smp#:

27

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: DRO2F

Limit Group: GC 8015 DRO ICAL

Column: Rtx Mineral Oil (0.32 mm)

Detector

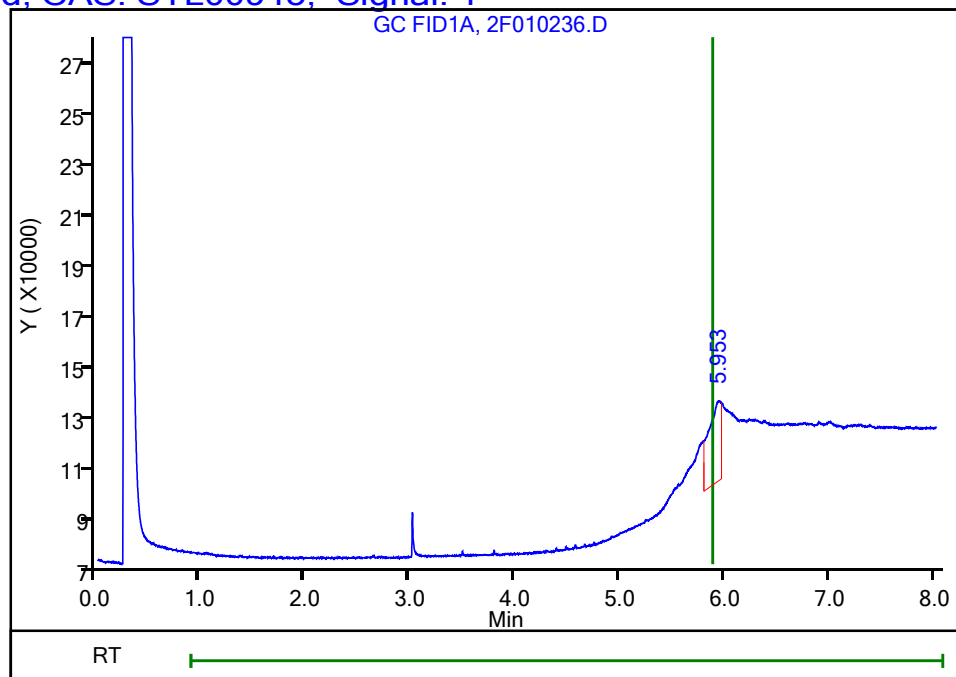
GC FID1A

9 Qualitative Method, CAS: STL00945, Signal: 1

RT: 5.95

Response: 253253

Amount: 0



Reviewer: hamzik, 20-Mar-2021 12:18:00

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 680-196209-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: PIBLK 460-765631/1
Matrix: Water Lab File ID: 2F010196.D
Analysis Method: 8015B Date Collected: _____
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 1(mL) Date Analyzed: 03/18/2021 14:44
Con. Extract Vol.: _____ Dilution Factor: 1
Injection Volume: 1(uL) GC Column: Rtx-Mineral Oil ID: 0.32(mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 765631 Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	NONE	NONE
STL00945	Qualitative Method	NC			

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210318-125614.b\2F010196.D
 Lims ID: PIBLK
 Client ID:
 Sample Type: PIBLK
 Inject. Date: 18-Mar-2021 14:44:14 ALS Bottle#: 1 Worklist Smp#: 1
 Injection Vol: 1.0 ul Dil. Factor: 1.0000
 Sample Info: 460-0125614-001
 Operator ID: Instrument ID: CBNAGC2
 Method: \\chromfs\Edison\ChromData\CBNAGC2\20210318-125614.b\DRO2F.m
 Limit Group: GC 8015 DRO ICAL
 Last Update: 19-Mar-2021 08:03:29 Calib Date: 23-Oct-2020 14:16:38
 Integrator: Falcon
 Quant Method: External Standard Quant By: Initial Calibration
 Last ICal File: \\chromfs\Edison\ChromData\CBNAGC2\20201023-118916.b\2F001700.D
 Column 1 : Rtx Mineral Oil (0.32 mm) Det: GC FID1A
 Process Host: CTX1630

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
--------------	------------------	------------------	----------	------------------	--------------------	-------

1 n-Decane	0.780	0.770	0.010	1815		0.1879
A 2 #2 Diesel Fuel	2.509	(0.646-4.356)		1668827		NC
A 3 C10-C28	2.494	(0.670-4.337)		219871		18.7
\$ 4 o-Terphenyl	3.190	3.192	-0.002	598501	40.0	43.8
A 5 C10-C44	3.189	(0.670-5.753)		917219		70.7
6 n-Octacosane	4.218	4.237	-0.019	2679		0.1886
A 7 C28-C44	4.913	(4.137-5.753)		730226		NC
8 Tetratetracontane	5.607	5.653	-0.046	14422		0.9012
9 Qualitative Method	5.905	5.895	0.010	57838		NC

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

SGPIBLKDRO_00020

Amount Added: 1.00

Units: mL

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210318-125614.b\2F010196.D

Injection Date: 18-Mar-2021 14:44:14

Instrument ID: CBNAGC2

Lims ID: PIBLK

Client ID:

Operator ID:

ALS Bottle#:

Worklist Smp#: 1

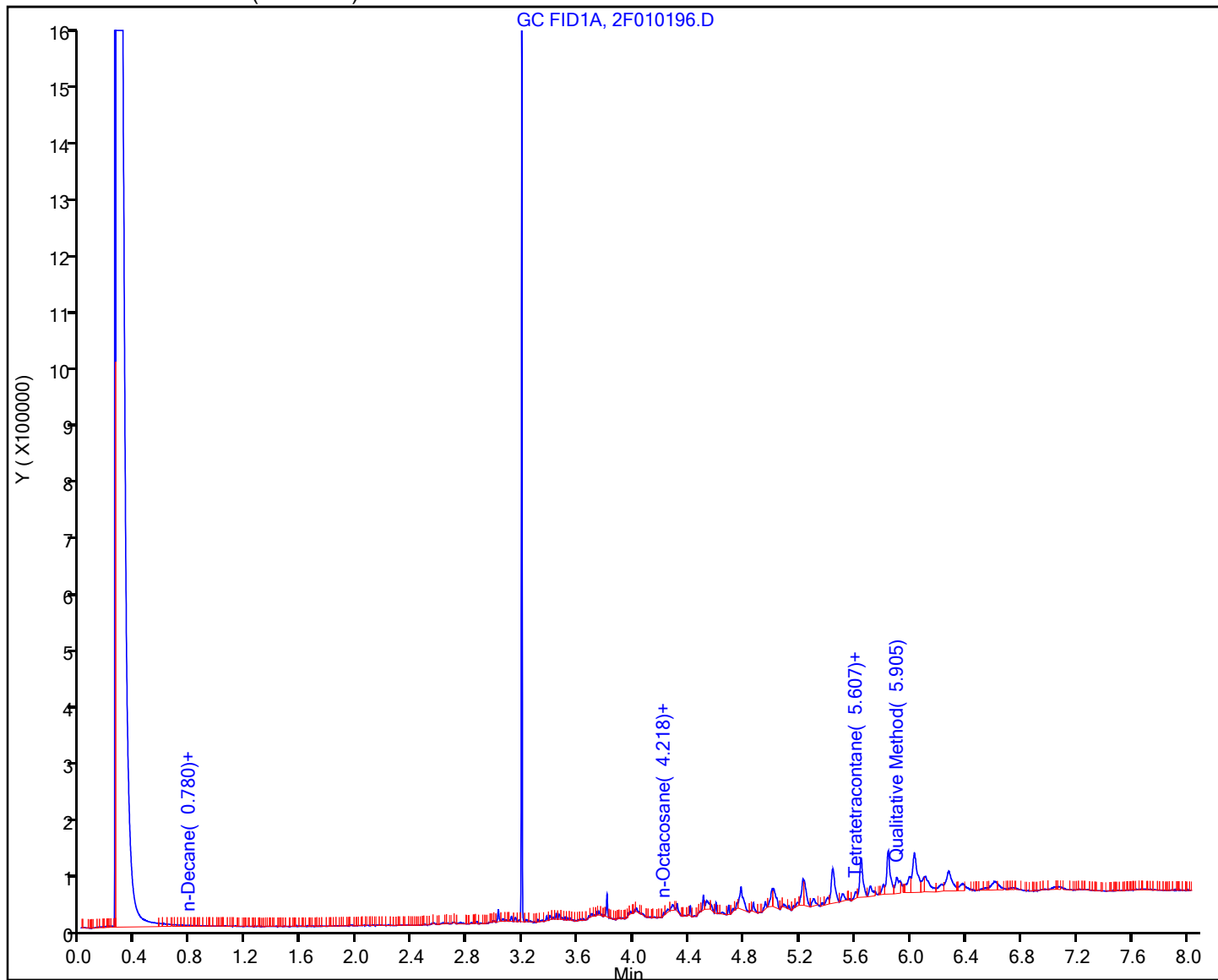
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: DRO2F

Limit Group: GC 8015 DRO ICAL

Column: Rtx Mineral Oil (0.32 mm)



Eurofins TestAmerica, Edison
Recovery Report

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210318-125614.b\2F010196.D
Lims ID: PIBLK
Client ID:
Sample Type: PIBLK
Inject. Date: 18-Mar-2021 14:44:14 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 460-0125614-001
Operator ID: Instrument ID: CBNAGC2
Method: \\chromfs\Edison\ChromData\CBNAGC2\20210318-125614.b\DRO2F.m
Limit Group: GC 8015 DRO ICAL
Last Update: 19-Mar-2021 08:03:29 Calib Date: 23-Oct-2020 14:16:38
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAGC2\20201023-118916.b\2F001700.D
Column 1 : Rtx Mineral Oil (0.32 mm) Det: GC FID1A
Process Host: CTX1630

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 o-Terphenyl	40.0	43.8	109.56

FORM I
DIESEL RANGE ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 680-196209-1
SDG No.: _____
Client Sample ID: _____ Lab Sample ID: PIBLK 460-765834/1
Matrix: Waste Lab File ID: 2F010207.D
Analysis Method: 8015B Date Collected: _____
Extraction Method: _____ Date Extracted: _____
Sample wt/vol: 1(mL) Date Analyzed: 03/19/2021 07:18
Con. Extract Vol.: _____ Dilution Factor: 1
Injection Volume: 1(uL) GC Column: Rtx-Mineral Oil ID: 0.32(mm)
% Moisture: _____ GPC Cleanup: (Y/N) N
Analysis Batch No.: 765834 Units: ug/mL

CAS NO.	COMPOUND NAME	RESULT	Q	NONE	NONE
STL00945	Qualitative Method	0.000			

Eurofins TestAmerica, Edison
Target Compound Quantitation Report

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210319-125668.b\2F010207.D
Lims ID: PIBLK
Client ID:
Sample Type: PIBLK
Inject. Date: 19-Mar-2021 07:18:09 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Instrument ID: CBNAGC2
Method: \\chromfs\Edison\ChromData\CBNAGC2\20210319-125668.b\DRO2F.m
Limit Group: GC 8015 DRO ICAL
Last Update: 19-Mar-2021 09:56:19 Calib Date: 23-Oct-2020 14:16:38
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAGC2\20201023-118916.b\2F001700.D
Column 1 : Rtx Mineral Oil (0.32 mm) Det: GC FID1A
Process Host: CTX1627

First Level Reviewer: hamzik

Date: 19-Mar-2021 12:06:28

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
--------------	------------------	------------------	----------	------------------	--------------------	-------

\$ 4 o-Terphenyl
3.189 3.190 -0.001 587886 40.0 43.0

QC Flag Legend

Processing Flags

Reagents:

SGPIBLKDRO_00020

Amount Added: 1.00

Units: mL

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210319-125668.b\2F010207.D

Injection Date: 19-Mar-2021 07:18:09

Instrument ID: CBNAGC2

Lims ID: PIBLK

Client ID:

Operator ID:

ALS Bottle#:

Worklist Smp#: 1

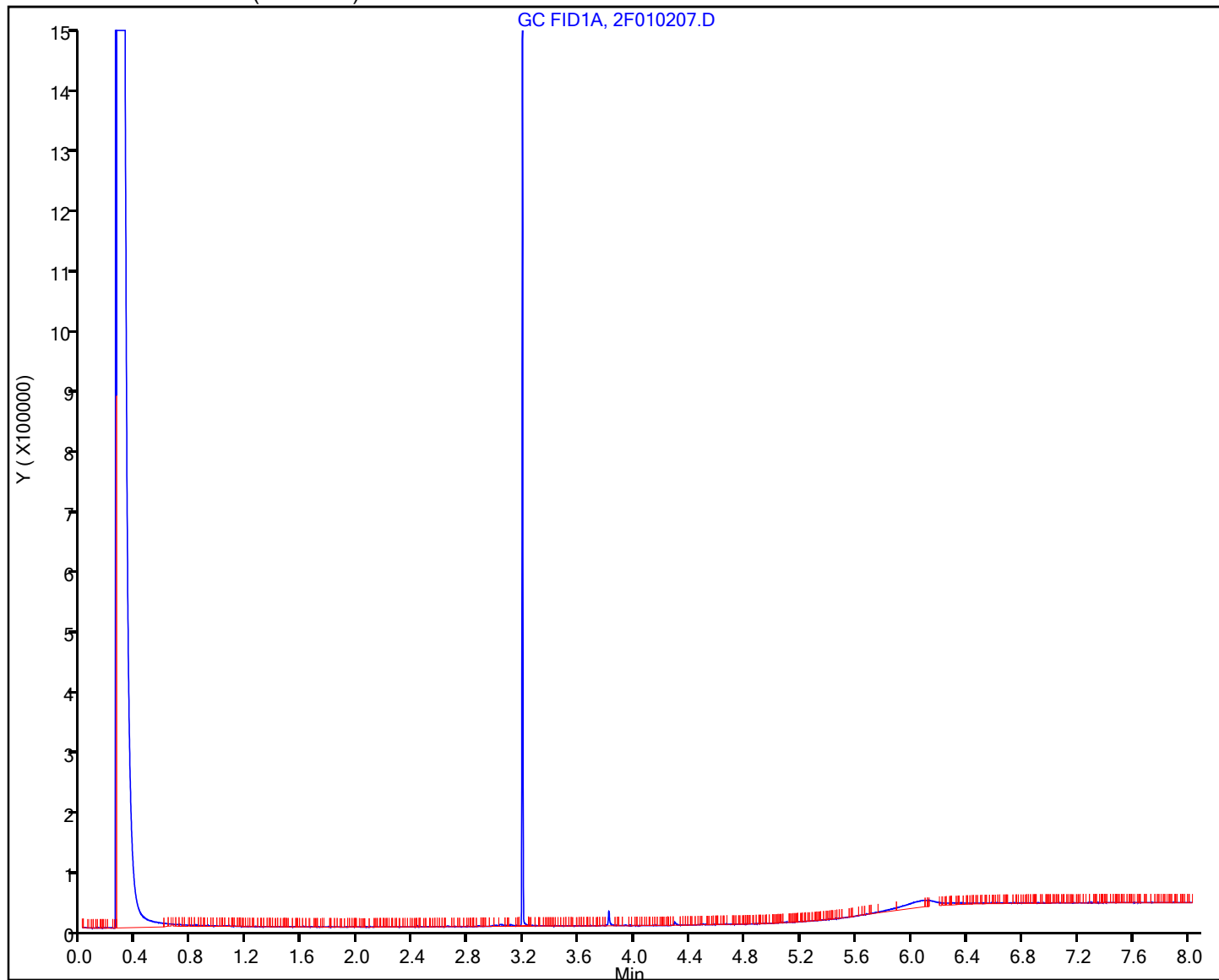
Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: DRO2F

Limit Group: GC 8015 DRO ICAL

Column: Rtx Mineral Oil (0.32 mm)



Eurofins TestAmerica, Edison
Recovery Report

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210319-125668.b\2F010207.D
Lims ID: PIBLK
Client ID:
Sample Type: PIBLK
Inject. Date: 19-Mar-2021 07:18:09 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info:
Operator ID: Instrument ID: CBNAGC2
Method: \\chromfs\Edison\ChromData\CBNAGC2\20210319-125668.b\DRO2F.m
Limit Group: GC 8015 DRO ICAL
Last Update: 19-Mar-2021 09:56:19 Calib Date: 23-Oct-2020 14:16:38
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Edison\ChromData\CBNAGC2\20201023-118916.b\2F001700.D
Column 1 : Rtx Mineral Oil (0.32 mm) Det: GC FID1A
Process Host: CTX1627

First Level Reviewer: hamzik

Date: 19-Mar-2021 12:06:28

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 o-Terphenyl	40.0	43.0	107.62

Eurofins TestAmerica, Edison

Data File: \\chromfs\Edison\ChromData\CBNAGC2\20210319-125668.b\2F010207.D

Injection Date: 19-Mar-2021 07:18:09

Instrument ID: CBNAGC2

Lims ID: PIBLK

Client ID:

Operator ID:

ALS Bottle#: 1 Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: DRO2F

Limit Group: GC 8015 DRO ICAL

Column: Rtx Mineral Oil (0.32 mm)

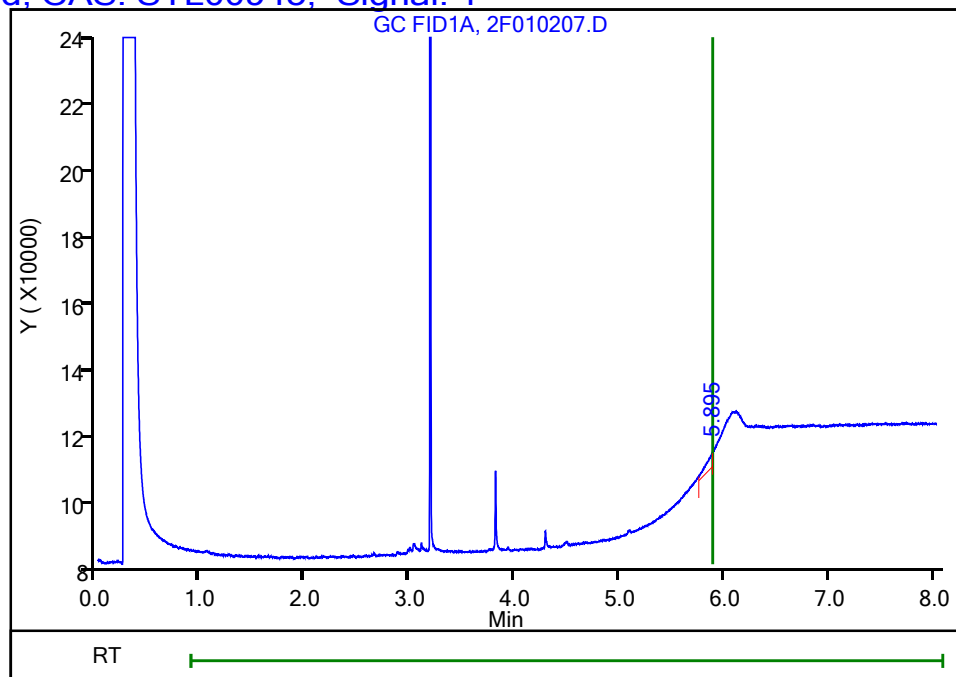
Detector GC FID1A

9 Qualitative Method, CAS: STL00945, Signal: 1

RT: 5.89

Response: 19334

Amount: 0



Reviewer: hamzik, 19-Mar-2021 09:01:06

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Edison Job No.: 680-196209-1

SDG No.: _____

Instrument ID: CBNAGC2 Start Date: 03/18/2021 14:44Analysis Batch Number: 765631 End Date: 03/18/2021 16:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PIBLK 460-765631/1		03/18/2021 14:44	1	2F010196.D	Rtx-Mineral Oil 0.32 (mm)
CCVRT 460-765631/2		03/18/2021 14:56	1		Rtx-Mineral Oil 0.32 (mm)
MB 460-765437/1-A		03/18/2021 15:09	1	2F010198.D	Rtx-Mineral Oil 0.32 (mm)
680-196209-2	MW11-GW	03/18/2021 15:22	1	2F010199.D	Rtx-Mineral Oil 0.32 (mm)
680-196209-6	GPA01-GW	03/18/2021 15:35	1	2F010200.D	Rtx-Mineral Oil 0.32 (mm)
ZZZZZ		03/18/2021 15:47	1		Rtx-Mineral Oil 0.32 (mm)
ZZZZZ		03/18/2021 16:00	1		Rtx-Mineral Oil 0.32 (mm)
ZZZZZ		03/18/2021 16:13	1		Rtx-Mineral Oil 0.32 (mm)

DIESEL RANGE ORGANICS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Edison Job No.: 680-196209-1

SDG No.: _____

Instrument ID: CBNAGC2 Start Date: 03/19/2021 07:18Analysis Batch Number: 765834 End Date: 03/19/2021 15:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PIBLK 460-765834/1		03/19/2021 07:18	1	2F010207.D	Rtx-Mineral Oil 0.32 (mm)
CCVRT 460-765834/2		03/19/2021 07:47	1		Rtx-Mineral Oil 0.32 (mm)
MB 460-765713/1-A		03/19/2021 15:17	1	2F010236.D	Rtx-Mineral Oil 0.32 (mm)
ZZZZZ		03/19/2021 15:30	1		Rtx-Mineral Oil 0.32 (mm)
ZZZZZ		03/19/2021 15:42	1		Rtx-Mineral Oil 0.32 (mm)
680-196209-13	PC03-GW	03/19/2021 15:55	1	2F010239.D	Rtx-Mineral Oil 0.32 (mm)

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 680-196209-1

SDG No.: _____

Batch Number: 765437 Batch Start Date: 03/17/21 21:00 Batch Analyst: Silva, JoseBatch Method: 3510C Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	AnalysisComment		
MB 460-765437/1		3510C, 8015B		1000 mL	1 mL	7 SU			
680-196209-I-2	MW11-GW	3510C, 8015B	T	50 mL	1 mL	7 SU	Limited Volume		
680-196209-A-6	GPA01-GW	3510C, 8015B	T	70 mL	1 mL	7 SU	Limited Volume		

Batch Notes	
Batch Comment	Fingerprint Water
Analyst ID - Concentration	Jose
Concentration 1 Corrected Temperature	32 Degrees C
Equipment ID - Concentration 1	31869
Analyst ID - Extraction	Jose
Method/Fraction	3510C / Fingerprint water
Na2SO4 ID	198855
pH Indicator ID	HC-025487
Prep Solvent ID	Methylene Chloride: 275352
Prep Solvent Volume Used	180 mL mL
Analyst ID - Spike Analyst	Jose
Thermometer ID - Concentration 1	31869
Concentration 1 Uncorrected Temperature	32 Degrees C
Vial Lot Number	20046051

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

DIESEL RANGE ORGANICS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Edison Job No.: 680-196209-1

SDG No.: _____

Batch Number: 765713 Batch Start Date: 03/18/21 20:33 Batch Analyst: Silva, JoseBatch Method: 3580A Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount				
MB 460-765713/1		3580A, 8015B		1.00 g	10 mL				
680-196209-A-13	PC03-GW	3580A, 8015B	T	1.00 g	10 mL				

Batch Notes	
Batch Comment	Fingerprint Waste
Analyst ID - Extraction	Jose
Method/Fraction	Fingerprint Waste
Prep Solvent ID	MeCl2: 275352

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

ANALYTICAL REPORT

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

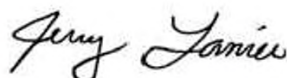
Laboratory Job ID: 680-196067-1

Client Project/Site: Brunswick

For:

Tetra Tech EM Inc.
1955 Evergreen Blvd.
Bldg. 200; Suite 300
Duluth, Georgia 30096

Attn: Jessica Vickers



Authorized for release by:
3/25/2021 12:26:10 PM

Jerry Lanier, Project Manager I
(912)250-0281
Jerry.Lanier@Eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Definitions/Glossary

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Sample Summary

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
680-196067-1	PC1-SB	Solid	03/08/21 19:10	03/10/21 13:45	
680-196067-2	PC2-SB	Solid	03/08/21 20:10	03/10/21 13:45	
680-196067-3	PC3-SB	Solid	03/08/21 21:25	03/10/21 13:45	
680-196067-4	PC4-SB	Solid	03/08/21 22:30	03/10/21 13:45	
680-196067-5	SS1-GW	Water	03/09/21 18:15	03/10/21 13:45	
680-196067-6	SS2-GW	Water	03/09/21 18:35	03/10/21 13:45	
680-196067-7	OP1-SB	Solid	03/09/21 19:30	03/10/21 13:45	
680-196067-8	OP2-SB	Solid	03/09/21 20:15	03/10/21 13:45	
680-196067-9	OP3-SB	Solid	03/09/21 20:55	03/10/21 13:45	
680-196067-10	OP5-GW	Water	03/09/21 20:20	03/10/21 13:45	
680-196067-11	OP4-SB	Solid	03/09/21 21:55	03/10/21 13:45	
680-196067-12	PC5-SB	Solid	03/10/21 02:55	03/10/21 13:45	
680-196067-13	PC5-SB-DUP	Solid	03/10/21 03:00	03/10/21 13:45	
680-196067-14	Trip Blank 1	Water	03/08/21 00:00	03/10/21 13:45	
680-196067-15	Trip Blank 2	Water	03/08/21 00:00	03/10/21 13:45	

Case Narrative

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Job ID: 680-196067-1

Laboratory: Eurofins TestAmerica, Savannah

Narrative

CASE NARRATIVE

Client: Tetra Tech EM Inc.

Project: Brunswick

Report Number: 680-196067-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT

The samples were received on 3/10/2021 1:45 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.8° C and 1.8° C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples PC1-SB (680-196067-1), PC2-SB (680-196067-2), PC3-SB (680-196067-3), PC4-SB (680-196067-4), OP1-SB (680-196067-7), OP2-SB (680-196067-8), OP3-SB (680-196067-9), OP4-SB (680-196067-11), PC5-SB (680-196067-12) and PC5-SB-DUP (680-196067-13) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW846 Method 8260B. The samples were prepared on 03/11/2021 and analyzed on 03/17/2021, 03/18/2021, 03/19/2021 and 03/22/2021.

Surrogate recovery for the following sample was outside the upper control limit: PC2-SB (680-196067-2). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

The method blank for analytical batch 680-660167 contained Toluene above the method detection limit (MDL). Associated samples were not re-analyzed because results were less than 1/2 of the reporting limit.

The BTEX and Xylene hits in this sample are likely the result of carry over from another sample in the same project that maxed out the detector. This sample is a rerun for ISTD failures so there is no more volume to run straight. Medium level soil analysis was run with the sample being non-detect for all target analytes. The straight run has been reported.

OP4-SB (680-196067-11)

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 680-659073 and analytical batches 680-659926, and 680-660392.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples SS1-GW (680-196067-5), SS2-GW (680-196067-6), OP5-GW (680-196067-10), Trip Blank 1 (680-196067-14) and Trip Blank 2 (680-196067-15) were analyzed for Volatile Organic Compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 03/13/2021.

Sample OP5-GW (680-196067-10)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DIESEL RANGE ORGANICS (DRO)

Case Narrative

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Job ID: 680-196067-1 (Continued)

Laboratory: Eurofins TestAmerica, Savannah (Continued)

Samples PC1-SB (680-196067-1), PC2-SB (680-196067-2), PC3-SB (680-196067-3), PC4-SB (680-196067-4), OP1-SB (680-196067-7), OP2-SB (680-196067-8), OP3-SB (680-196067-9), OP4-SB (680-196067-11), PC5-SB (680-196067-12) and PC5-SB-DUP (680-196067-13) were analyzed for Diesel Range Organics (DRO) in accordance with SW 846 8015C DRO. The samples were prepared on 03/12/2021 and analyzed on 03/12/2021, 03/13/2021 and 03/14/2021.

The method blank for preparation batch 680-659183 and analytical batch 680-659296 contained Diesel Range Organics [C10-C28] above the method detection limit (MDL). Associated samples were not re-analyzed because results were less than the reporting limit (RL).

Diesel Range Organics [C10-C28] was detected in method blank MB 680-659183/13-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Samples PC3-SB (680-196067-3)[20X], PC4-SB (680-196067-4)[10X], OP3-SB (680-196067-9)[5X], PC5-SB (680-196067-12)[5X] and PC5-SB-DUP (680-196067-13)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

8015D DRO

Samples SS1-GW (680-196067-5), SS2-GW (680-196067-6) and OP5-GW (680-196067-10) were analyzed for 8015D DRO in accordance with EPA SW-846 8015D. The samples were prepared and analyzed on 03/12/2021.

The following sample contained residual chlorine upon receipt: SS1-GW (680-196067-5).

The method blank for preparation batch 680-659304 and analytical batch 680-659296 contained C10-C28 above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction of the samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

8015D GRO

Samples SS1-GW (680-196067-5), SS2-GW (680-196067-6) and OP5-GW (680-196067-10) were analyzed for 8015D GRO in accordance with EPA SW-846 8015D. The samples were analyzed on 03/12/2021.

Toluene was detected in method blank MB 680-660167/12 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Sample OP5-GW (680-196067-10)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

8015D GRO

Samples PC1-SB (680-196067-1), PC2-SB (680-196067-2), PC3-SB (680-196067-3), PC4-SB (680-196067-4), OP1-SB (680-196067-7), OP2-SB (680-196067-8), OP3-SB (680-196067-9), OP4-SB (680-196067-11), PC5-SB (680-196067-12) and PC5-SB-DUP (680-196067-13) were analyzed for 8015D GRO in accordance with 8015D. The samples were prepared on 03/11/2021 and analyzed on 03/11/2021 and 03/12/2021.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

PERCENT SOLIDS/MOISTURE

Samples PC1-SB (680-196067-1), PC2-SB (680-196067-2), PC3-SB (680-196067-3), PC4-SB (680-196067-4), OP1-SB (680-196067-7), OP2-SB (680-196067-8), OP3-SB (680-196067-9), OP4-SB (680-196067-11), PC5-SB (680-196067-12) and PC5-SB-DUP (680-196067-13) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 03/11/2021.

Case Narrative

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Job ID: 680-196067-1 (Continued)

Laboratory: Eurofins TestAmerica, Savannah (Continued)

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Client Sample ID: PC1-SB

Lab Sample ID: 680-196067-1

Date Collected: 03/08/21 19:10

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 76.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		7.2	1.0	ug/Kg	✱	03/11/21 10:43	03/18/21 19:32	1
Ethylbenzene	<1.9		7.2	1.9	ug/Kg	✱	03/11/21 10:43	03/18/21 19:32	1
Toluene	3.9	J B	7.2	1.2	ug/Kg	✱	03/11/21 10:43	03/18/21 19:32	1
Xylenes, Total	6.1	J	14	1.6	ug/Kg	✱	03/11/21 10:43	03/18/21 19:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	03/11/21 10:43	03/18/21 19:32	1
Dibromofluoromethane (Surr)	108		70 - 130	03/11/21 10:43	03/18/21 19:32	1
1,2-Dichloroethane-d4 (Surr)	115		70 - 130	03/11/21 10:43	03/18/21 19:32	1
Toluene-d8 (Surr)	95		70 - 130	03/11/21 10:43	03/18/21 19:32	1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<3.5		14	3.5	mg/Kg	☼	03/11/21 10:19	03/11/21 21:17	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	90		70 - 131				03/11/21 10:19	03/11/21 21:17	100

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (C20-C36)	<26		26	26	mg/Kg	☼	03/12/21 07:28	03/12/21 23:21	1
Diesel Range Organics [C10-C28]	11	B	4.2	2.7	mg/Kg	☼	03/12/21 07:28	03/12/21 23:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	80		45 - 130				03/12/21 07:28	03/12/21 23:21	1

Client Sample ID: PC2-SB

Lab Sample ID: 680-196067-2

Date Collected: 03/08/21 20:10

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 90.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.86		5.9	0.86	ug/Kg	✱	03/11/21 10:43	03/17/21 17:57	1
Ethylbenzene	<1.5		5.9	1.5	ug/Kg	✱	03/11/21 10:43	03/17/21 17:57	1
Toluene	1.1	J	5.9	0.99	ug/Kg	✱	03/11/21 10:43	03/17/21 17:57	1
Xylenes, Total	<1.3		12	1.3	ug/Kg	✱	03/11/21 10:43	03/17/21 17:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130	03/11/21 10:43	03/17/21 17:57	1
Dibromofluoromethane (Surr)	131	S1+	70 - 130	03/11/21 10:43	03/17/21 17:57	1
1,2-Dichloroethane-d4 (Surr)	138	S1+	70 - 130	03/11/21 10:43	03/17/21 17:57	1
Toluene-d8 (Surr)	105		70 - 130	03/11/21 10:43	03/17/21 17:57	1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<2.5		10	2.5	mg/Kg	☼	03/11/21 10:19	03/11/21 21:39	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	90		70 - 131				03/11/21 10:19	03/11/21 21:39	100

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Client Sample ID: PC2-SB

Lab Sample ID: 680-196067-2

Date Collected: 03/08/21 20:10

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 90.6

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (C20-C36)	<21		21	21	mg/Kg	✱	03/12/21 07:28	03/13/21 00:23	1
Diesel Range Organics [C10-C28]	5.8	B	3.5	2.2	mg/Kg	✱	03/12/21 07:28	03/13/21 00:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	55		45 - 130				03/12/21 07:28	03/13/21 00:23	1

Client Sample ID: PC3-SB

Lab Sample ID: 680-196067-3

Date Collected: 03/08/21 21:25

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 91.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	130000		29000	4200	ug/Kg	✱	03/11/21 10:43	03/18/21 22:07	1
Ethylbenzene	360000		29000	7600	ug/Kg	✱	03/11/21 10:43	03/18/21 22:07	1
Toluene	850000	B	29000	5000	ug/Kg	✱	03/11/21 10:43	03/18/21 22:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	96		65 - 130				03/11/21 10:43	03/18/21 22:07	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	103		65 - 130				03/11/21 10:43	03/18/21 22:07	1
<i>Dibromofluoromethane (Surr)</i>	104		65 - 130				03/11/21 10:43	03/18/21 22:07	1
<i>4-Bromofluorobenzene (Surr)</i>	109		65 - 130				03/11/21 10:43	03/18/21 22:07	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	1800000		550000	61000	ug/Kg	✱	03/11/21 10:19	03/22/21 14:26	500
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	107		65 - 130				03/11/21 10:19	03/22/21 14:26	500
<i>1,2-Dichloroethane-d4 (Surr)</i>	90		65 - 130				03/11/21 10:19	03/22/21 14:26	500
<i>Dibromofluoromethane (Surr)</i>	102		65 - 130				03/11/21 10:19	03/22/21 14:26	500
<i>4-Bromofluorobenzene (Surr)</i>	96		65 - 130				03/11/21 10:19	03/22/21 14:26	500

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	8900		2200	550	mg/Kg	✱	03/11/21 10:19	03/12/21 22:06	20000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>a,a,a</i> -Trifluorotoluene	100		70 - 131				03/11/21 10:19	03/12/21 22:06	20000

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (C20-C36)	260		21	21	mg/Kg	✱	03/12/21 07:28	03/13/21 00:38	1
Diesel Range Organics [C10-C28]	4500	B	69	44	mg/Kg	✱	03/12/21 07:28	03/14/21 20:04	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	94		45 - 130				03/12/21 07:28	03/13/21 00:38	1

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Client Sample ID: PC4-SB

Lab Sample ID: 680-196067-4

Date Collected: 03/08/21 22:30

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 76.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	92000		10000	1500	ug/Kg	✱	03/11/21 10:43	03/18/21 22:30	1
Ethylbenzene	160000		10000	2600	ug/Kg	✱	03/11/21 10:43	03/18/21 22:30	1
Toluene	320000	B	10000	1700	ug/Kg	✱	03/11/21 10:43	03/18/21 22:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	93		65 - 130				03/11/21 10:43	03/18/21 22:30	1
1,2-Dichloroethane-d4 (Surr)	103		65 - 130				03/11/21 10:43	03/18/21 22:30	1
Dibromofluoromethane (Surr)	104		65 - 130				03/11/21 10:43	03/18/21 22:30	1
4-Bromofluorobenzene (Surr)	107		65 - 130				03/11/21 10:43	03/18/21 22:30	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	800000		210000	23000	ug/Kg	✱	03/11/21 10:19	03/22/21 14:48	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		65 - 130				03/11/21 10:19	03/22/21 14:48	100
1,2-Dichloroethane-d4 (Surr)	90		65 - 130				03/11/21 10:19	03/22/21 14:48	100
Dibromofluoromethane (Surr)	99		65 - 130				03/11/21 10:19	03/22/21 14:48	100
4-Bromofluorobenzene (Surr)	96		65 - 130				03/11/21 10:19	03/22/21 14:48	100

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	6600		1000	260	mg/Kg	✱	03/11/21 10:19	03/12/21 16:07	5000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	102		70 - 131				03/11/21 10:19	03/12/21 16:07	5000

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (C20-C36)	300		26	26	mg/Kg	✱	03/12/21 07:28	03/13/21 00:53	1
Diesel Range Organics [C10-C28]	2700	B	42	27	mg/Kg	✱	03/12/21 07:28	03/14/21 20:20	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	93		45 - 130				03/12/21 07:28	03/13/21 00:53	1

Client Sample ID: SS1-GW

Lab Sample ID: 680-196067-5

Date Collected: 03/09/21 18:15

Matrix: Water

Date Received: 03/10/21 13:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.43		1.0	0.43	ug/L			03/13/21 17:44	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			03/13/21 17:44	1
Toluene	<0.48		1.0	0.48	ug/L			03/13/21 17:44	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			03/13/21 17:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		70 - 130					03/13/21 17:44	1
1,2-Dichloroethane-d4 (Surr)	104		60 - 124					03/13/21 17:44	1
Dibromofluoromethane (Surr)	114		70 - 130					03/13/21 17:44	1
4-Bromofluorobenzene (Surr)	108		70 - 130					03/13/21 17:44	1

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Client Sample ID: SS1-GW

Lab Sample ID: 680-196067-5

Date Collected: 03/09/21 18:15

Matrix: Water

Date Received: 03/10/21 13:45

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<0.050		0.10	0.050	mg/L			03/12/21 20:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	104		70 - 130					03/12/21 20:17	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1.2	B	0.41	0.093	mg/L		03/12/21 13:55	03/12/21 19:46	1
Oil Range Organics (C20-C36)	1.0	J	2.7	0.45	mg/L		03/12/21 13:55	03/12/21 19:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	75		25 - 128				03/12/21 13:55	03/12/21 19:46	1

Client Sample ID: SS2-GW

Lab Sample ID: 680-196067-6

Date Collected: 03/09/21 18:35

Matrix: Water

Date Received: 03/10/21 13:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.43		1.0	0.43	ug/L			03/13/21 18:10	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			03/13/21 18:10	1
Toluene	<0.48		1.0	0.48	ug/L			03/13/21 18:10	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			03/13/21 18:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106		70 - 130					03/13/21 18:10	1
1,2-Dichloroethane-d4 (Surr)	105		60 - 124					03/13/21 18:10	1
Dibromofluoromethane (Surr)	115		70 - 130					03/13/21 18:10	1
4-Bromofluorobenzene (Surr)	104		70 - 130					03/13/21 18:10	1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<0.050		0.10	0.050	mg/L			03/12/21 20:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	98		70 - 130					03/12/21 20:39	1

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	0.46	B	0.33	0.075	mg/L		03/12/21 13:55	03/12/21 19:31	1
Oil Range Organics (C20-C36)	<0.36		2.2	0.36	mg/L		03/12/21 13:55	03/12/21 19:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	78		25 - 128				03/12/21 13:55	03/12/21 19:31	1

Client Sample ID: OP1-SB

Lab Sample ID: 680-196067-7

Date Collected: 03/09/21 19:30

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 81.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.80		5.5	0.80	ug/Kg	☆	03/11/21 10:43	03/19/21 19:00	1

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Client Sample ID: OP1-SB

Lab Sample ID: 680-196067-7

Date Collected: 03/09/21 19:30

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 81.8

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	<1.4		5.5	1.4	ug/Kg	✱	03/11/21 10:43	03/19/21 19:00	1
Toluene	1.0	J	5.5	0.92	ug/Kg	✱	03/11/21 10:43	03/19/21 19:00	1
Xylenes, Total	<1.2		11	1.2	ug/Kg	✱	03/11/21 10:43	03/19/21 19:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130				03/11/21 10:43	03/19/21 19:00	1
Dibromofluoromethane (Surr)	113		70 - 130				03/11/21 10:43	03/19/21 19:00	1
1,2-Dichloroethane-d4 (Surr)	117		70 - 130				03/11/21 10:43	03/19/21 19:00	1
Toluene-d8 (Surr)	97		70 - 130				03/11/21 10:43	03/19/21 19:00	1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<3.3		13	3.3	mg/Kg	✱	03/11/21 10:19	03/11/21 22:00	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	90		70 - 131				03/11/21 10:19	03/11/21 22:00	100

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (C20-C36)	<23		23	23	mg/Kg	✱	03/12/21 07:28	03/13/21 01:09	1
Diesel Range Organics [C10-C28]	6.0	B	3.9	2.5	mg/Kg	✱	03/12/21 07:28	03/13/21 01:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	72		45 - 130				03/12/21 07:28	03/13/21 01:09	1

Client Sample ID: OP2-SB

Lab Sample ID: 680-196067-8

Date Collected: 03/09/21 20:15

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 80.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	54000		1900	280	ug/Kg	✱	03/11/21 10:43	03/19/21 21:14	1
Ethylbenzene	33000		1900	510	ug/Kg	✱	03/11/21 10:43	03/19/21 21:14	1
Toluene	4700		1900	330	ug/Kg	✱	03/11/21 10:43	03/19/21 21:14	1
Xylenes, Total	31000		3900	430	ug/Kg	✱	03/11/21 10:43	03/19/21 21:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		65 - 130				03/11/21 10:43	03/19/21 21:14	1
1,2-Dichloroethane-d4 (Surr)	100		65 - 130				03/11/21 10:43	03/19/21 21:14	1
Dibromofluoromethane (Surr)	100		65 - 130				03/11/21 10:43	03/19/21 21:14	1
4-Bromofluorobenzene (Surr)	108		65 - 130				03/11/21 10:43	03/19/21 21:14	1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	610		170	42	mg/Kg	✱	03/11/21 10:19	03/12/21 14:39	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	103		70 - 131				03/11/21 10:19	03/12/21 14:39	1000

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (C20-C36)	76		24	24	mg/Kg	✱	03/12/21 07:28	03/13/21 01:24	1

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Client Sample ID: OP2-SB

Lab Sample ID: 680-196067-8

Date Collected: 03/09/21 20:15

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 80.0

Method: 8015D - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	580	B	3.9	2.5	mg/Kg	☆	03/12/21 07:28	03/13/21 01:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	77		45 - 130				03/12/21 07:28	03/13/21 01:24	1

Client Sample ID: OP3-SB

Lab Sample ID: 680-196067-9

Date Collected: 03/09/21 20:55

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 80.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	10000		6200	900	ug/Kg	☆	03/11/21 10:19	03/22/21 15:10	1
Ethylbenzene	13000		6200	1600	ug/Kg	☆	03/11/21 10:19	03/22/21 15:10	1
Toluene	24000		6200	1100	ug/Kg	☆	03/11/21 10:19	03/22/21 15:10	1
Xylenes, Total	71000		12000	1400	ug/Kg	☆	03/11/21 10:19	03/22/21 15:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	107		65 - 130				03/11/21 10:19	03/22/21 15:10	1
1,2-Dichloroethane-d4 (Surr)	93		65 - 130				03/11/21 10:19	03/22/21 15:10	1
Dibromofluoromethane (Surr)	100		65 - 130				03/11/21 10:19	03/22/21 15:10	1
4-Bromofluorobenzene (Surr)	95		65 - 130				03/11/21 10:19	03/22/21 15:10	1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	1200		250	62	mg/Kg	☆	03/11/21 10:19	03/12/21 15:01	1000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	100		70 - 131				03/11/21 10:19	03/12/21 15:01	1000

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (C20-C36)	<120		120	120	mg/Kg	☆	03/12/21 07:28	03/13/21 01:39	5
Diesel Range Organics [C10-C28]	100	B	20	13	mg/Kg	☆	03/12/21 07:28	03/13/21 01:39	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	57		45 - 130				03/12/21 07:28	03/13/21 01:39	5

Client Sample ID: OP5-GW

Lab Sample ID: 680-196067-10

Date Collected: 03/09/21 20:20

Matrix: Water

Date Received: 03/10/21 13:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<43		100	43	ug/L			03/13/21 22:25	100
Ethylbenzene	6200		100	33	ug/L			03/13/21 22:25	100
Toluene	540		100	48	ug/L			03/13/21 22:25	100
Xylenes, Total	19000		100	23	ug/L			03/13/21 22:25	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	109		70 - 130					03/13/21 22:25	100
1,2-Dichloroethane-d4 (Surr)	110		60 - 124					03/13/21 22:25	100
Dibromofluoromethane (Surr)	119		70 - 130					03/13/21 22:25	100

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Client Sample ID: OP5-GW

Lab Sample ID: 680-196067-10

Date Collected: 03/09/21 20:20

Matrix: Water

Date Received: 03/10/21 13:45

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130		03/13/21 22:25	100

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	67		10	5.0	mg/L			03/12/21 21:23	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	103		70 - 130		03/12/21 21:23	100

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	10	B	0.30	0.067	mg/L		03/12/21 13:55	03/12/21 20:02	1
Oil Range Organics (C20-C36)	<0.33		2.0	0.33	mg/L		03/12/21 13:55	03/12/21 20:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	73		25 - 128	03/12/21 13:55	03/12/21 20:02	1

Client Sample ID: OP4-SB

Lab Sample ID: 680-196067-11

Date Collected: 03/09/21 21:55

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 78.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	4.0	J	5.3	0.78	ug/Kg	☆	03/11/21 10:43	03/18/21 20:16	1
Ethylbenzene	6.8		5.3	1.4	ug/Kg	☆	03/11/21 10:43	03/18/21 20:16	1
Toluene	14	B	5.3	0.90	ug/Kg	☆	03/11/21 10:43	03/18/21 20:16	1
Xylenes, Total	37		11	1.2	ug/Kg	☆	03/11/21 10:43	03/18/21 20:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	03/11/21 10:43	03/18/21 20:16	1
Dibromofluoromethane (Surr)	108		70 - 130	03/11/21 10:43	03/18/21 20:16	1
1,2-Dichloroethane-d4 (Surr)	119		70 - 130	03/11/21 10:43	03/18/21 20:16	1
Toluene-d8 (Surr)	80		70 - 130	03/11/21 10:43	03/18/21 20:16	1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	3.9	J	13	3.3	mg/Kg	☆	03/11/21 10:19	03/11/21 23:06	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	85		70 - 131	03/11/21 10:19	03/11/21 23:06	100

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (C20-C36)	58		25	25	mg/Kg	☆	03/12/21 07:28	03/13/21 01:55	1
Diesel Range Organics [C10-C28]	210	B	4.1	2.6	mg/Kg	☆	03/12/21 07:28	03/13/21 01:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	88		45 - 130	03/12/21 07:28	03/13/21 01:55	1

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Client Sample ID: PC5-SB

Lab Sample ID: 680-196067-12

Date Collected: 03/10/21 02:55

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 80.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	64000		44000	6400	ug/Kg	✱	03/11/21 10:19	03/22/21 15:55	1
Ethylbenzene	140000		44000	11000	ug/Kg	✱	03/11/21 10:19	03/22/21 15:55	1
Toluene	150000		44000	7500	ug/Kg	✱	03/11/21 10:19	03/22/21 15:55	1
Xylenes, Total	650000		88000	9700	ug/Kg	✱	03/11/21 10:19	03/22/21 15:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	108		65 - 130	03/11/21 10:19	03/22/21 15:55	1
1,2-Dichloroethane-d4 (Surr)	93		65 - 130	03/11/21 10:19	03/22/21 15:55	1
Dibromofluoromethane (Surr)	102		65 - 130	03/11/21 10:19	03/22/21 15:55	1
4-Bromofluorobenzene (Surr)	105		65 - 130	03/11/21 10:19	03/22/21 15:55	1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	2700		350	88	mg/Kg	✱	03/11/21 10:19	03/12/21 15:23	2000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	101		70 - 131	03/11/21 10:19	03/12/21 15:23	2000

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (C20-C36)	<120		120	120	mg/Kg	✱	03/12/21 07:28	03/13/21 03:11	5
Diesel Range Organics [C10-C28]	1200	B	20	13	mg/Kg	✱	03/12/21 07:28	03/13/21 03:11	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	65		45 - 130	03/12/21 07:28	03/13/21 03:11	5

Client Sample ID: PC5-SB-DUP

Lab Sample ID: 680-196067-13

Date Collected: 03/10/21 03:00

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 80.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	26000	J	44000	6400	ug/Kg	✱	03/11/21 10:19	03/22/21 16:17	1
Ethylbenzene	68000		44000	11000	ug/Kg	✱	03/11/21 10:19	03/22/21 16:17	1
Toluene	42000	J	44000	7500	ug/Kg	✱	03/11/21 10:19	03/22/21 16:17	1
Xylenes, Total	320000		88000	9700	ug/Kg	✱	03/11/21 10:19	03/22/21 16:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	110		65 - 130	03/11/21 10:19	03/22/21 16:17	1
1,2-Dichloroethane-d4 (Surr)	92		65 - 130	03/11/21 10:19	03/22/21 16:17	1
Dibromofluoromethane (Surr)	102		65 - 130	03/11/21 10:19	03/22/21 16:17	1
4-Bromofluorobenzene (Surr)	100		65 - 130	03/11/21 10:19	03/22/21 16:17	1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	2900		350	88	mg/Kg	✱	03/11/21 10:19	03/12/21 15:45	2000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	100		70 - 131	03/11/21 10:19	03/12/21 15:45	2000

Eurofins TestAmerica, Savannah

Client Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Client Sample ID: PC5-SB-DUP

Lab Sample ID: 680-196067-13

Date Collected: 03/10/21 03:00

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 80.5

Method: 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (C20-C36)	<120		120	120	mg/Kg	☆	03/12/21 07:28	03/13/21 03:26	5
Diesel Range Organics [C10-C28]	1400	B	20	13	mg/Kg	☆	03/12/21 07:28	03/13/21 03:26	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	75		45 - 130				03/12/21 07:28	03/13/21 03:26	5

Client Sample ID: Trip Blank 1

Lab Sample ID: 680-196067-14

Date Collected: 03/08/21 00:00

Matrix: Water

Date Received: 03/10/21 13:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.43		1.0	0.43	ug/L			03/13/21 16:02	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			03/13/21 16:02	1
Toluene	<0.48		1.0	0.48	ug/L			03/13/21 16:02	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			03/13/21 16:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	107		70 - 130					03/13/21 16:02	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	104		60 - 124					03/13/21 16:02	1
<i>Dibromofluoromethane (Surr)</i>	113		70 - 130					03/13/21 16:02	1
<i>4-Bromofluorobenzene (Surr)</i>	107		70 - 130					03/13/21 16:02	1

Client Sample ID: Trip Blank 2

Lab Sample ID: 680-196067-15

Date Collected: 03/08/21 00:00

Matrix: Water

Date Received: 03/10/21 13:45

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.43		1.0	0.43	ug/L			03/13/21 16:28	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			03/13/21 16:28	1
Toluene	<0.48		1.0	0.48	ug/L			03/13/21 16:28	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			03/13/21 16:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	112		70 - 130					03/13/21 16:28	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	108		60 - 124					03/13/21 16:28	1
<i>Dibromofluoromethane (Surr)</i>	117		70 - 130					03/13/21 16:28	1
<i>4-Bromofluorobenzene (Surr)</i>	106		70 - 130					03/13/21 16:28	1

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-659401/9

Matrix: Water

Analysis Batch: 659401

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.43		1.0	0.43	ug/L			03/13/21 15:19	1
Ethylbenzene	<0.33		1.0	0.33	ug/L			03/13/21 15:19	1
Toluene	<0.48		1.0	0.48	ug/L			03/13/21 15:19	1
Xylenes, Total	<0.23		1.0	0.23	ug/L			03/13/21 15:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		60 - 124		03/13/21 15:19	1
Dibromofluoromethane (Surr)	116		70 - 130		03/13/21 15:19	1
Toluene-d8 (Surr)	108		70 - 130		03/13/21 15:19	1
4-Bromofluorobenzene (Surr)	107		70 - 130		03/13/21 15:19	1

Lab Sample ID: LCS 680-659401/4

Matrix: Water

Analysis Batch: 659401

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	58.2		ug/L		116	70 - 130
Ethylbenzene	50.0	56.0		ug/L		112	70 - 130
Toluene	50.0	56.5		ug/L		113	70 - 130
Xylenes, Total	100	115		ug/L		115	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	108		60 - 124
Dibromofluoromethane (Surr)	112		70 - 130
Toluene-d8 (Surr)	108		70 - 130
4-Bromofluorobenzene (Surr)	97		70 - 130

Lab Sample ID: LCSD 680-659401/5

Matrix: Water

Analysis Batch: 659401

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	56.8		ug/L		114	70 - 130	3	30
Ethylbenzene	50.0	55.8		ug/L		112	70 - 130	0	20
Toluene	50.0	55.5		ug/L		111	70 - 130	2	30
Xylenes, Total	100	114		ug/L		114	70 - 130	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		60 - 124
Dibromofluoromethane (Surr)	110		70 - 130
Toluene-d8 (Surr)	108		70 - 130
4-Bromofluorobenzene (Surr)	94		70 - 130

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-659926/9

Matrix: Solid

Analysis Batch: 659926

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.73		5.0	0.73	ug/Kg			03/17/21 14:00	1
Ethylbenzene	<1.3		5.0	1.3	ug/Kg			03/17/21 14:00	1
Toluene	<0.84		5.0	0.84	ug/Kg			03/17/21 14:00	1
Xylenes, Total	<1.1		10	1.1	ug/Kg			03/17/21 14:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		70 - 130		03/17/21 14:00	1
Dibromofluoromethane (Surr)	112		70 - 130		03/17/21 14:00	1
Toluene-d8 (Surr)	92		70 - 130		03/17/21 14:00	1
4-Bromofluorobenzene (Surr)	95		70 - 130		03/17/21 14:00	1

Lab Sample ID: LCS 680-659926/4

Matrix: Solid

Analysis Batch: 659926

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	52.8		ug/Kg		106	70 - 130
Ethylbenzene	50.0	50.8		ug/Kg		102	70 - 130
Toluene	50.0	53.1		ug/Kg		106	70 - 130
Xylenes, Total	100	106		ug/Kg		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	118		70 - 130
Dibromofluoromethane (Surr)	116		70 - 130
Toluene-d8 (Surr)	102		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 680-659926/5

Matrix: Solid

Analysis Batch: 659926

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	50.0	46.3		ug/Kg		93	70 - 130	13	20
Ethylbenzene	50.0	48.0		ug/Kg		96	70 - 130	6	20
Toluene	50.0	47.3		ug/Kg		95	70 - 130	11	20
Xylenes, Total	100	97.6		ug/Kg		98	70 - 130	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130
Toluene-d8 (Surr)	96		70 - 130
4-Bromofluorobenzene (Surr)	95		70 - 130

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-660167/12

Matrix: Solid

Analysis Batch: 660167

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.73		5.0	0.73	ug/Kg			03/18/21 16:03	1
Ethylbenzene	<1.3		5.0	1.3	ug/Kg			03/18/21 16:03	1
Toluene	1.77	J	5.0	0.84	ug/Kg			03/18/21 16:03	1
Xylenes, Total	<1.1		10	1.1	ug/Kg			03/18/21 16:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		03/18/21 16:03	1
Dibromofluoromethane (Surr)	113		70 - 130		03/18/21 16:03	1
Toluene-d8 (Surr)	92		70 - 130		03/18/21 16:03	1
4-Bromofluorobenzene (Surr)	108		70 - 130		03/18/21 16:03	1

Lab Sample ID: LCS 680-660167/8

Matrix: Solid

Analysis Batch: 660167

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	52.5		ug/Kg		105	70 - 130
Ethylbenzene	50.0	52.9		ug/Kg		106	70 - 130
Toluene	50.0	58.2		ug/Kg		116	70 - 130
Xylenes, Total	100	109		ug/Kg		109	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	113		70 - 130
Dibromofluoromethane (Surr)	116		70 - 130
Toluene-d8 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	110		70 - 130

Lab Sample ID: LCSD 680-660167/9

Matrix: Solid

Analysis Batch: 660167

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	50.0	45.6		ug/Kg		91	70 - 130	14	20
Ethylbenzene	50.0	48.1		ug/Kg		96	70 - 130	10	20
Toluene	50.0	50.9		ug/Kg		102	70 - 130	13	20
Xylenes, Total	100	98.4		ug/Kg		98	70 - 130	10	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		70 - 130
Dibromofluoromethane (Surr)	99		70 - 130
Toluene-d8 (Surr)	93		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-660392/7

Matrix: Solid

Analysis Batch: 660392

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.73		5.0	0.73	ug/Kg			03/19/21 13:02	1
Ethylbenzene	<1.3		5.0	1.3	ug/Kg			03/19/21 13:02	1
Toluene	<0.84		5.0	0.84	ug/Kg			03/19/21 13:02	1
Xylenes, Total	<1.1		10	1.1	ug/Kg			03/19/21 13:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		70 - 130		03/19/21 13:02	1
Dibromofluoromethane (Surr)	108		70 - 130		03/19/21 13:02	1
Toluene-d8 (Surr)	93		70 - 130		03/19/21 13:02	1
4-Bromofluorobenzene (Surr)	98		70 - 130		03/19/21 13:02	1

Lab Sample ID: LCS 680-660392/5

Matrix: Solid

Analysis Batch: 660392

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	52.9		ug/Kg		106	70 - 130
Ethylbenzene	50.0	55.1		ug/Kg		110	70 - 130
Toluene	50.0	57.5		ug/Kg		115	70 - 130
Xylenes, Total	100	115		ug/Kg		115	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		70 - 130
Dibromofluoromethane (Surr)	112		70 - 130
Toluene-d8 (Surr)	105		70 - 130
4-Bromofluorobenzene (Surr)	111		70 - 130

Lab Sample ID: LCSD 680-660392/9

Matrix: Solid

Analysis Batch: 660392

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	50.0	47.0		ug/Kg		94	70 - 130	12	20
Ethylbenzene	50.0	49.4		ug/Kg		99	70 - 130	11	20
Toluene	50.0	50.5		ug/Kg		101	70 - 130	13	20
Xylenes, Total	100	104		ug/Kg		104	70 - 130	10	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 130
Dibromofluoromethane (Surr)	107		70 - 130
Toluene-d8 (Surr)	93		70 - 130
4-Bromofluorobenzene (Surr)	103		70 - 130

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 680-660677/5

Matrix: Solid

Analysis Batch: 660677

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.73		5.0	0.73	ug/Kg			03/22/21 12:15	1
Ethylbenzene	<1.3		5.0	1.3	ug/Kg			03/22/21 12:15	1
Toluene	<0.85		5.0	0.85	ug/Kg			03/22/21 12:15	1
Xylenes, Total	<1.1		10	1.1	ug/Kg			03/22/21 12:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		65 - 130		03/22/21 12:15	1
Dibromofluoromethane (Surr)	100		65 - 130		03/22/21 12:15	1
Toluene-d8 (Surr)	108		65 - 130		03/22/21 12:15	1
4-Bromofluorobenzene (Surr)	98		65 - 130		03/22/21 12:15	1

Lab Sample ID: LCS 680-660677/3

Matrix: Solid

Analysis Batch: 660677

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	48.3		ug/Kg		97	70 - 130
Ethylbenzene	50.0	53.9		ug/Kg		108	70 - 130
Toluene	50.0	47.9		ug/Kg		96	70 - 130
Xylenes, Total	100	109		ug/Kg		109	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		65 - 130
Dibromofluoromethane (Surr)	100		65 - 130
Toluene-d8 (Surr)	109		65 - 130
4-Bromofluorobenzene (Surr)	100		65 - 130

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 680-659074/26

Matrix: Solid

Analysis Batch: 659074

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<2.5		10	2.5	mg/Kg			03/11/21 20:55	100

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	89		70 - 131		03/11/21 20:55	100

Lab Sample ID: LCS 680-659074/24

Matrix: Solid

Analysis Batch: 659074

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C10	50.0	45.4		mg/Kg		91	64 - 133

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Method: 8015D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: LCS 680-659074/24

Matrix: Solid

Analysis Batch: 659074

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
a,a,a-Trifluorotoluene	98		70 - 131

Lab Sample ID: LCSD 680-659074/25

Matrix: Solid

Analysis Batch: 659074

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C10	50.0	47.0		mg/Kg		94	64 - 133	3	50

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
a,a,a-Trifluorotoluene	99		70 - 131

Lab Sample ID: MB 680-659263/17

Matrix: Water

Analysis Batch: 659263

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<0.050		0.10	0.050	mg/L			03/12/21 18:27	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	95		70 - 130		03/12/21 18:27	1

Lab Sample ID: MB 680-659263/6

Matrix: Water

Analysis Batch: 659263

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	<2.5		10	2.5	mg/Kg			03/12/21 13:40	100

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	97		70 - 131		03/12/21 13:40	100

Lab Sample ID: LCS 680-659263/15

Matrix: Water

Analysis Batch: 659263

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C10	0.500	0.491		mg/L		98	70 - 148

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
a,a,a-Trifluorotoluene	103		70 - 130

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Method: 8015D - Gasoline Range Organics (GRO) (GC) (Continued)

Lab Sample ID: LCS 680-659263/4

Matrix: Solid

Analysis Batch: 659263

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

				Spike	LCS	LCS						
Analyte				Added	Result	Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C10				50.0	48.7		mg/Kg		97	64 - 133		
		LCS	LCS									
Surrogate	%Recovery	Qualifier	Limits									
a,a,a-Trifluorotoluene	104		70 - 131									

Lab Sample ID: LCSD 680-659263/16

Matrix: Water

Analysis Batch: 659263

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C10			0.500	0.474		mg/L		95	70 - 148	4	50
Surrogate											
	LCSD %Recovery	LCSD Qualifier	Limits								
a,a,a-Trifluorotoluene	102		70 - 130								

Lab Sample ID: LCSD 680-659263/5

Matrix: Solid

Analysis Batch: 659263

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

			Spike	LCSD	LCSD				%Rec.	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
C6-C10			50.0	48.3		mg/Kg		97	64 - 133	1	50
			LCSD	LCSD							
Surrogate	%Recovery	Qualifier	Limits								
a,a,a-Trifluorotoluene	103		70 - 131								

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 680-659183/13-A

Matrix: Solid

Analysis Batch: 659296

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 659183

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	2.24	J	3.2	2.0	mg/Kg		03/12/21 07:28	03/12/21 21:49	1
Oil Range Organics (C20-C36)	<19		19	19	mg/Kg		03/12/21 07:28	03/12/21 21:49	1
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	78		45 - 130				03/12/21 07:28	03/12/21 21:49	1

Lab Sample ID: LCS 680-659183/14-A

Matrix: Solid

Analysis Batch: 659296

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 659183

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	65.0	47.9		mg/Kg		74	35 - 130

Eurofins TestAmerica, Savannah

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Method: 8015D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 680-659183/14-A

Matrix: Solid

Analysis Batch: 659296

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 659183

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl	85		45 - 130

Lab Sample ID: LCS 680-659183/17-A

Matrix: Solid

Analysis Batch: 659296

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 659183

		Spike	LCS	LCS					%Rec.	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits		
Oil Range Organics (C20-C36)		131	85.0		mg/Kg		65	13 - 148		

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl	96		45 - 130

Lab Sample ID: 680-196067-1 MS

Matrix: Solid

Analysis Batch: 659296

Client Sample ID: PC1-SB

Prep Type: Total/NA

Prep Batch: 659183

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Oil Range Organics (C20-C36)	<26		167	129		mg/Kg	✖	77	13 - 148	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl	90		45 - 130

Lab Sample ID: 680-196067-1 MSD

Matrix: Solid

Analysis Batch: 659296

Client Sample ID: PC1-SB

Prep Type: Total/NA

Prep Batch: 659183

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Oil Range Organics (C20-C36)	<26		168	114		mg/Kg	✖	68	13 - 148	12	50	

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl	81		45 - 130

Lab Sample ID: MB 680-659304/1-A

Matrix: Water

Analysis Batch: 659296

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 659304

	MB	MB									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
Diesel Range Organics [C10-C28]	0.106	J	0.30	0.068	mg/L		03/12/21 13:55	03/12/21 17:13	1		
Oil Range Organics (C20-C36)	<0.33		2.0	0.33	mg/L		03/12/21 13:55	03/12/21 17:13	1		

	MB	MB								
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac				
<i>o</i> -Terphenyl	61		25 - 128	03/12/21 13:55	03/12/21 17:13	1				

Eurofins TestAmerica, Savannah

QC Sample Results

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Method: 8015D - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 680-659304/2-A

Matrix: Water

Analysis Batch: 659296

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 659304

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics			4.00	2.03		mg/L		51	21 - 130		
[C10-C28]											
		LCS		LCS							
Surrogate		%Recovery		Qualifier		Limits					
o-Terphenyl		69				25 - 128					

Lab Sample ID: LCSD 680-659304/3-A

Matrix: Water

Analysis Batch: 659296

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 659304

			Spike	LCSD	LCSD				%Rec.	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Diesel Range Organics			4.00	2.50		mg/L		63	21 - 130	21	50
[C10-C28]											
		LCSD	LCSD								
Surrogate	%Recovery	Qualifier	Limits								
o-Terphenyl	79		25 - 128								

Lab Sample ID: LCSD 680-659304/5-A

Matrix: Water

Analysis Batch: 659296

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 659304

			Spike	LCSD	LCSD				%Rec.	RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Oil Range Organics (C20-C36)			8.00	4.81		mg/L		60	32 - 130	15	50
			LCSD	LCSD							
Surrogate	%Recovery	Qualifier	Limits								
o-Terphenyl	86		25 - 128								

QC Association Summary

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

GC/MS VOA

Prep Batch: 659051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196067-3 - DL	PC3-SB	Total/NA	Solid	5035A	
680-196067-4 - DL	PC4-SB	Total/NA	Solid	5035A	
680-196067-9	OP3-SB	Total/NA	Solid	5035A	
680-196067-12	PC5-SB	Total/NA	Solid	5035A	
680-196067-13	PC5-SB-DUP	Total/NA	Solid	5035A	

Prep Batch: 659073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196067-1	PC1-SB	Total/NA	Solid	5035A	
680-196067-2	PC2-SB	Total/NA	Solid	5035A	
680-196067-3	PC3-SB	Total/NA	Solid	5035A	
680-196067-4	PC4-SB	Total/NA	Solid	5035A	
680-196067-7	OP1-SB	Total/NA	Solid	5035A	
680-196067-8	OP2-SB	Total/NA	Solid	5035A	
680-196067-11	OP4-SB	Total/NA	Solid	5035A	

Analysis Batch: 659401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196067-5	SS1-GW	Total/NA	Water	8260B	
680-196067-6	SS2-GW	Total/NA	Water	8260B	
680-196067-10	OP5-GW	Total/NA	Water	8260B	
680-196067-14	Trip Blank 1	Total/NA	Water	8260B	
680-196067-15	Trip Blank 2	Total/NA	Water	8260B	
MB 680-659401/9	Method Blank	Total/NA	Water	8260B	
LCS 680-659401/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 680-659401/5	Lab Control Sample Dup	Total/NA	Water	8260B	

Analysis Batch: 659926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196067-2	PC2-SB	Total/NA	Solid	8260B	659073
MB 680-659926/9	Method Blank	Total/NA	Solid	8260B	
LCS 680-659926/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 680-659926/5	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 660167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196067-1	PC1-SB	Total/NA	Solid	8260B	659073
680-196067-3	PC3-SB	Total/NA	Solid	8260B	659073
680-196067-4	PC4-SB	Total/NA	Solid	8260B	659073
680-196067-11	OP4-SB	Total/NA	Solid	8260B	659073
MB 680-660167/12	Method Blank	Total/NA	Solid	8260B	
LCS 680-660167/8	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 680-660167/9	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 660392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196067-7	OP1-SB	Total/NA	Solid	8260B	659073
680-196067-8	OP2-SB	Total/NA	Solid	8260B	659073
MB 680-660392/7	Method Blank	Total/NA	Solid	8260B	
LCS 680-660392/5	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 680-660392/9	Lab Control Sample Dup	Total/NA	Solid	8260B	

Eurofins TestAmerica, Savannah

QC Association Summary

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

GC/MS VOA

Analysis Batch: 660677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196067-3 - DL	PC3-SB	Total/NA	Solid	8260B	659051
680-196067-4 - DL	PC4-SB	Total/NA	Solid	8260B	659051
680-196067-9	OP3-SB	Total/NA	Solid	8260B	659051
680-196067-12	PC5-SB	Total/NA	Solid	8260B	659051
680-196067-13	PC5-SB-DUP	Total/NA	Solid	8260B	659051
MB 680-660677/5	Method Blank	Total/NA	Solid	8260B	
LCS 680-660677/3	Lab Control Sample	Total/NA	Solid	8260B	

GC VOA

Prep Batch: 659051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196067-1	PC1-SB	Total/NA	Solid	5035A	
680-196067-2	PC2-SB	Total/NA	Solid	5035A	
680-196067-3	PC3-SB	Total/NA	Solid	5035A	
680-196067-4	PC4-SB	Total/NA	Solid	5035A	
680-196067-7	OP1-SB	Total/NA	Solid	5035A	
680-196067-8	OP2-SB	Total/NA	Solid	5035A	
680-196067-9	OP3-SB	Total/NA	Solid	5035A	
680-196067-11	OP4-SB	Total/NA	Solid	5035A	
680-196067-12	PC5-SB	Total/NA	Solid	5035A	
680-196067-13	PC5-SB-DUP	Total/NA	Solid	5035A	

Analysis Batch: 659074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196067-1	PC1-SB	Total/NA	Solid	8015D	659051
680-196067-2	PC2-SB	Total/NA	Solid	8015D	659051
680-196067-7	OP1-SB	Total/NA	Solid	8015D	659051
680-196067-11	OP4-SB	Total/NA	Solid	8015D	659051
MB 680-659074/26	Method Blank	Total/NA	Solid	8015D	
LCS 680-659074/24	Lab Control Sample	Total/NA	Solid	8015D	
LCSD 680-659074/25	Lab Control Sample Dup	Total/NA	Solid	8015D	

Analysis Batch: 659263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196067-3	PC3-SB	Total/NA	Solid	8015D	659051
680-196067-4	PC4-SB	Total/NA	Solid	8015D	659051
680-196067-5	SS1-GW	Total/NA	Water	8015D	
680-196067-6	SS2-GW	Total/NA	Water	8015D	
680-196067-8	OP2-SB	Total/NA	Solid	8015D	659051
680-196067-9	OP3-SB	Total/NA	Solid	8015D	659051
680-196067-10	OP5-GW	Total/NA	Water	8015D	
680-196067-12	PC5-SB	Total/NA	Solid	8015D	659051
680-196067-13	PC5-SB-DUP	Total/NA	Solid	8015D	659051
MB 680-659263/17	Method Blank	Total/NA	Water	8015D	
MB 680-659263/6	Method Blank	Total/NA	Water	8015D	
LCS 680-659263/15	Lab Control Sample	Total/NA	Water	8015D	
LCS 680-659263/4	Lab Control Sample	Total/NA	Solid	8015D	
LCSD 680-659263/16	Lab Control Sample Dup	Total/NA	Water	8015D	
LCSD 680-659263/5	Lab Control Sample Dup	Total/NA	Solid	8015D	

Eurofins TestAmerica, Savannah

QC Association Summary

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

GC Semi VOA

Prep Batch: 659183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196067-1	PC1-SB	Total/NA	Solid	3546	
680-196067-2	PC2-SB	Total/NA	Solid	3546	
680-196067-3	PC3-SB	Total/NA	Solid	3546	
680-196067-4	PC4-SB	Total/NA	Solid	3546	
680-196067-7	OP1-SB	Total/NA	Solid	3546	
680-196067-8	OP2-SB	Total/NA	Solid	3546	
680-196067-9	OP3-SB	Total/NA	Solid	3546	
680-196067-11	OP4-SB	Total/NA	Solid	3546	
680-196067-12	PC5-SB	Total/NA	Solid	3546	
680-196067-13	PC5-SB-DUP	Total/NA	Solid	3546	
MB 680-659183/13-A	Method Blank	Total/NA	Solid	3546	
LCS 680-659183/14-A	Lab Control Sample	Total/NA	Solid	3546	
LCS 680-659183/17-A	Lab Control Sample	Total/NA	Solid	3546	
680-196067-1 MS	PC1-SB	Total/NA	Solid	3546	
680-196067-1 MSD	PC1-SB	Total/NA	Solid	3546	

Analysis Batch: 659296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196067-1	PC1-SB	Total/NA	Solid	8015D	659183
680-196067-2	PC2-SB	Total/NA	Solid	8015D	659183
680-196067-3	PC3-SB	Total/NA	Solid	8015D	659183
680-196067-4	PC4-SB	Total/NA	Solid	8015D	659183
680-196067-5	SS1-GW	Total/NA	Water	8015D	659304
680-196067-6	SS2-GW	Total/NA	Water	8015D	659304
680-196067-7	OP1-SB	Total/NA	Solid	8015D	659183
680-196067-8	OP2-SB	Total/NA	Solid	8015D	659183
680-196067-9	OP3-SB	Total/NA	Solid	8015D	659183
680-196067-10	OP5-GW	Total/NA	Water	8015D	659304
680-196067-11	OP4-SB	Total/NA	Solid	8015D	659183
680-196067-12	PC5-SB	Total/NA	Solid	8015D	659183
680-196067-13	PC5-SB-DUP	Total/NA	Solid	8015D	659183
MB 680-659183/13-A	Method Blank	Total/NA	Solid	8015D	659183
MB 680-659304/1-A	Method Blank	Total/NA	Water	8015D	659304
LCS 680-659183/14-A	Lab Control Sample	Total/NA	Solid	8015D	659183
LCS 680-659183/17-A	Lab Control Sample	Total/NA	Solid	8015D	659183
LCS 680-659304/2-A	Lab Control Sample	Total/NA	Water	8015D	659304
LCSD 680-659304/3-A	Lab Control Sample Dup	Total/NA	Water	8015D	659304
LCSD 680-659304/5-A	Lab Control Sample Dup	Total/NA	Water	8015D	659304
680-196067-1 MS	PC1-SB	Total/NA	Solid	8015D	659183
680-196067-1 MSD	PC1-SB	Total/NA	Solid	8015D	659183

Prep Batch: 659304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196067-5	SS1-GW	Total/NA	Water	3510C	
680-196067-6	SS2-GW	Total/NA	Water	3510C	
680-196067-10	OP5-GW	Total/NA	Water	3510C	
MB 680-659304/1-A	Method Blank	Total/NA	Water	3510C	
LCS 680-659304/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 680-659304/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
LCSD 680-659304/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Eurofins TestAmerica, Savannah

QC Association Summary

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

GC Semi VOA

Analysis Batch: 659502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196067-3	PC3-SB	Total/NA	Solid	8015D	659183
680-196067-4	PC4-SB	Total/NA	Solid	8015D	659183

General Chemistry

Analysis Batch: 658982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-196067-1	PC1-SB	Total/NA	Solid	Moisture	
680-196067-2	PC2-SB	Total/NA	Solid	Moisture	
680-196067-3	PC3-SB	Total/NA	Solid	Moisture	
680-196067-4	PC4-SB	Total/NA	Solid	Moisture	
680-196067-7	OP1-SB	Total/NA	Solid	Moisture	
680-196067-8	OP2-SB	Total/NA	Solid	Moisture	
680-196067-9	OP3-SB	Total/NA	Solid	Moisture	
680-196067-11	OP4-SB	Total/NA	Solid	Moisture	
680-196067-12	PC5-SB	Total/NA	Solid	Moisture	
680-196067-13	PC5-SB-DUP	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Client Sample ID: PC1-SB

Date Collected: 03/08/21 19:10

Date Received: 03/10/21 13:45

Lab Sample ID: 680-196067-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			658982	03/11/21 07:20	JEB	TAL SAV
Instrument ID: NOEQUIP										

Client Sample ID: PC1-SB

Date Collected: 03/08/21 19:10

Date Received: 03/10/21 13:45

Lab Sample ID: 680-196067-1

Matrix: Solid

Percent Solids: 76.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			4.553 g	5 mL	659073	03/11/21 10:43	FES	TAL SAV
Total/NA	Analysis	8260B		1	5 g	5 g	660167	03/18/21 19:32	Y1S	TAL SAV
Instrument ID: CMSAB										
Total/NA	Prep	5035A			5.869 g	5 mL	659051	03/11/21 10:19	FES	TAL SAV
Total/NA	Analysis	8015D		100	5 mL	5 mL	659074	03/11/21 21:17	DBM	TAL SAV
Instrument ID: CVGWFD1										
Total/NA	Prep	3546			15.19 g	1 mL	659183	03/12/21 07:28	MEW	TAL SAV
Total/NA	Analysis	8015D		1			659296	03/12/21 23:21	DBM	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: PC2-SB

Date Collected: 03/08/21 20:10

Date Received: 03/10/21 13:45

Lab Sample ID: 680-196067-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			658982	03/11/21 07:20	JEB	TAL SAV
Instrument ID: NOEQUIP										

Client Sample ID: PC2-SB

Date Collected: 03/08/21 20:10

Date Received: 03/10/21 13:45

Lab Sample ID: 680-196067-2

Matrix: Solid

Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			4.696 g	5 mL	659073	03/11/21 10:43	FES	TAL SAV
Total/NA	Analysis	8260B		1	5 g	5 g	659926	03/17/21 17:57	UI	TAL SAV
Instrument ID: CMSAB										
Total/NA	Prep	5035A			6.093 g	5 mL	659051	03/11/21 10:19	FES	TAL SAV
Total/NA	Analysis	8015D		100	5 mL	5 mL	659074	03/11/21 21:39	DBM	TAL SAV
Instrument ID: CVGWFD1										
Total/NA	Prep	3546			15.52 g	1 mL	659183	03/12/21 07:28	MEW	TAL SAV
Total/NA	Analysis	8015D		1			659296	03/13/21 00:23	DBM	TAL SAV
Instrument ID: CSGAB1										

Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Client Sample ID: PC3-SB

Date Collected: 03/08/21 21:25

Date Received: 03/10/21 13:45

Lab Sample ID: 680-196067-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			658982	03/11/21 07:20	JEB	TAL SAV
Instrument ID: NOEQUIP										

Client Sample ID: PC3-SB

Date Collected: 03/08/21 21:25

Date Received: 03/10/21 13:45

Lab Sample ID: 680-196067-3

Matrix: Solid

Percent Solids: 91.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			5.05 g	5 mL	659073	03/11/21 10:43	FES	TAL SAV
Total/NA	Analysis	8260B		1	1 uL	5 mL	660167	03/18/21 22:07	Y1S	TAL SAV
Instrument ID: CMSAB										
Total/NA	Prep	5035A	DL		5.397 g	5 mL	659051	03/11/21 10:19	FES	TAL SAV
Total/NA	Analysis	8260B	DL	500	50 uL	5 mL	660677	03/22/21 14:26	SMP	TAL SAV
Instrument ID: CMSAB										
Total/NA	Prep	5035A			5.397 g	5 mL	659051	03/11/21 10:19	FES	TAL SAV
Total/NA	Analysis	8015D		20000	5 mL	5 mL	659263	03/12/21 22:06	DBM	TAL SAV
Instrument ID: CVGWFI1										
Total/NA	Prep	3546			15.67 g	1 mL	659183	03/12/21 07:28	MEW	TAL SAV
Total/NA	Analysis	8015D		1			659296	03/13/21 00:38	DBM	TAL SAV
Instrument ID: CSGAB1										
Total/NA	Prep	3546			15.67 g	1 mL	659183	03/12/21 07:28	MEW	TAL SAV
Total/NA	Analysis	8015D		20			659502	03/14/21 20:04	JCK	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: PC4-SB

Date Collected: 03/08/21 22:30

Date Received: 03/10/21 13:45

Lab Sample ID: 680-196067-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			658982	03/11/21 07:20	JEB	TAL SAV
Instrument ID: NOEQUIP										

Client Sample ID: PC4-SB

Date Collected: 03/08/21 22:30

Date Received: 03/10/21 13:45

Lab Sample ID: 680-196067-4

Matrix: Solid

Percent Solids: 76.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			3.872 g	5 mL	659073	03/11/21 10:43	FES	TAL SAV
Total/NA	Analysis	8260B		1	5 uL	5 mL	660167	03/18/21 22:30	Y1S	TAL SAV
Instrument ID: CMSAB										
Total/NA	Prep	5035A	DL		3.691 g	5 mL	659051	03/11/21 10:19	FES	TAL SAV
Total/NA	Analysis	8260B	DL	100	50 uL	5 mL	660677	03/22/21 14:48	SMP	TAL SAV
Instrument ID: CMSAB										
Total/NA	Prep	5035A			3.691 g	5 mL	659051	03/11/21 10:19	FES	TAL SAV
Total/NA	Analysis	8015D		5000	5 mL	5 mL	659263	03/12/21 16:07	DBM	TAL SAV
Instrument ID: CVGWFI1										

Eurofins TestAmerica, Savannah

Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Client Sample ID: PC4-SB

Lab Sample ID: 680-196067-4

Date Collected: 03/08/21 22:30

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 76.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.36 g	1 mL	659183	03/12/21 07:28	MEW	TAL SAV
Total/NA	Analysis	8015D		1			659296	03/13/21 00:53	DBM	TAL SAV
Instrument ID: CSGAB1										
Total/NA	Prep	3546			15.36 g	1 mL	659183	03/12/21 07:28	MEW	TAL SAV
Total/NA	Analysis	8015D		10			659502	03/14/21 20:20	JCK	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: SS1-GW

Lab Sample ID: 680-196067-5

Date Collected: 03/09/21 18:15

Matrix: Water

Date Received: 03/10/21 13:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	659401	03/13/21 17:44	EMA	TAL SAV
Instrument ID: CMSAA										
Total/NA	Analysis	8015D		1	5 mL	5 mL	659263	03/12/21 20:17	DBM	TAL SAV
Instrument ID: CVGWFFID1										
Total/NA	Prep	3510C			183.7 mL	1 mL	659304	03/12/21 13:55	TRA	TAL SAV
Total/NA	Analysis	8015D		1			659296	03/12/21 19:46	DBM	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: SS2-GW

Lab Sample ID: 680-196067-6

Date Collected: 03/09/21 18:35

Matrix: Water

Date Received: 03/10/21 13:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	659401	03/13/21 18:10	EMA	TAL SAV
Instrument ID: CMSAA										
Total/NA	Analysis	8015D		1	5 mL	5 mL	659263	03/12/21 20:39	DBM	TAL SAV
Instrument ID: CVGWFFID1										
Total/NA	Prep	3510C			227.9 mL	1 mL	659304	03/12/21 13:55	TRA	TAL SAV
Total/NA	Analysis	8015D		1			659296	03/12/21 19:31	DBM	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: OP1-SB

Lab Sample ID: 680-196067-7

Date Collected: 03/09/21 19:30

Matrix: Solid

Date Received: 03/10/21 13:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			658982	03/11/21 07:20	JEB	TAL SAV
Instrument ID: NOEQUIP										

Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Client Sample ID: OP1-SB

Lab Sample ID: 680-196067-7

Date Collected: 03/09/21 19:30

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 81.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			5.555 g	5 mL	659073	03/11/21 10:43	FES	TAL SAV
Total/NA	Analysis	8260B		1	5 g	5 g	660392	03/19/21 19:00	SMP	TAL SAV
Instrument ID: CMSAB										
Total/NA	Prep	5035A			5.48 g	5 mL	659051	03/11/21 10:19	FES	TAL SAV
Total/NA	Analysis	8015D		100	5 mL	5 mL	659074	03/11/21 22:00	DBM	TAL SAV
Instrument ID: CVGWFD1										
Total/NA	Prep	3546			15.64 g	1 mL	659183	03/12/21 07:28	MEW	TAL SAV
Total/NA	Analysis	8015D		1			659296	03/13/21 01:09	DBM	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: OP2-SB

Lab Sample ID: 680-196067-8

Date Collected: 03/09/21 20:15

Matrix: Solid

Date Received: 03/10/21 13:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			658982	03/11/21 07:20	JEB	TAL SAV
Instrument ID: NOEQUIP										

Client Sample ID: OP2-SB

Lab Sample ID: 680-196067-8

Date Collected: 03/09/21 20:15

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 80.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			3.686 g	5 mL	659073	03/11/21 10:43	FES	TAL SAV
Total/NA	Analysis	8260B		1	25 uL	5 mL	660392	03/19/21 21:14	SMP	TAL SAV
Instrument ID: CMSAB										
Total/NA	Prep	5035A			4.392 g	5 mL	659051	03/11/21 10:19	FES	TAL SAV
Total/NA	Analysis	8015D		1000	5 mL	5 mL	659263	03/12/21 14:39	DBM	TAL SAV
Instrument ID: CVGWFD1										
Total/NA	Prep	3546			15.81 g	1 mL	659183	03/12/21 07:28	MEW	TAL SAV
Total/NA	Analysis	8015D		1			659296	03/13/21 01:24	DBM	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: OP3-SB

Lab Sample ID: 680-196067-9

Date Collected: 03/09/21 20:55

Matrix: Solid

Date Received: 03/10/21 13:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			658982	03/11/21 07:20	JEB	TAL SAV
Instrument ID: NOEQUIP										

Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Client Sample ID: OP3-SB

Lab Sample ID: 680-196067-9

Date Collected: 03/09/21 20:55

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			2.764 g	5 mL	659051	03/11/21 10:19	FES	TAL SAV
Total/NA	Analysis	8260B		1	10 uL	5 mL	660677	03/22/21 15:10	SMP	TAL SAV
Instrument ID: CMSAB										
Total/NA	Prep	5035A			2.764 g	5 mL	659051	03/11/21 10:19	FES	TAL SAV
Total/NA	Analysis	8015D		1000	5 mL	5 mL	659263	03/12/21 15:01	DBM	TAL SAV
Instrument ID: CVGWFD1										
Total/NA	Prep	3546			15.11 g	1 mL	659183	03/12/21 07:28	MEW	TAL SAV
Total/NA	Analysis	8015D		5			659296	03/13/21 01:39	DBM	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: OP5-GW

Lab Sample ID: 680-196067-10

Date Collected: 03/09/21 20:20

Matrix: Water

Date Received: 03/10/21 13:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100	5 mL	5 mL	659401	03/13/21 22:25	EMA	TAL SAV
Instrument ID: CMSAA										
Total/NA	Analysis	8015D		100	5 mL	5 mL	659263	03/12/21 21:23	DBM	TAL SAV
Instrument ID: CVGWFD1										
Total/NA	Prep	3510C			252.4 mL	1 mL	659304	03/12/21 13:55	TRA	TAL SAV
Total/NA	Analysis	8015D		1			659296	03/12/21 20:02	DBM	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: OP4-SB

Lab Sample ID: 680-196067-11

Date Collected: 03/09/21 21:55

Matrix: Solid

Date Received: 03/10/21 13:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			658982	03/11/21 07:20	JEB	TAL SAV
Instrument ID: NOEQUIP										

Client Sample ID: OP4-SB

Lab Sample ID: 680-196067-11

Date Collected: 03/09/21 21:55

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 78.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			5.972 g	5 mL	659073	03/11/21 10:43	FES	TAL SAV
Total/NA	Analysis	8260B		1	5 g	5 g	660167	03/18/21 20:16	Y1S	TAL SAV
Instrument ID: CMSAB										
Total/NA	Prep	5035A			6.066 g	5 mL	659051	03/11/21 10:19	FES	TAL SAV
Total/NA	Analysis	8015D		100	5 mL	5 mL	659074	03/11/21 23:06	DBM	TAL SAV
Instrument ID: CVGWFD1										
Total/NA	Prep	3546			15.54 g	1 mL	659183	03/12/21 07:28	MEW	TAL SAV
Total/NA	Analysis	8015D		1			659296	03/13/21 01:55	DBM	TAL SAV
Instrument ID: CSGAB1										

Eurofins TestAmerica, Savannah

Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Client Sample ID: PC5-SB

Lab Sample ID: 680-196067-12

Date Collected: 03/10/21 02:55

Matrix: Solid

Date Received: 03/10/21 13:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			658982	03/11/21 07:20	JEB	TAL SAV
Instrument ID: NOEQUIP										

Client Sample ID: PC5-SB

Lab Sample ID: 680-196067-12

Date Collected: 03/10/21 02:55

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 80.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			4.124 g	5 mL	659051	03/11/21 10:19	FES	TAL SAV
Total/NA	Analysis	8260B		1	1 uL	5 mL	660677	03/22/21 15:55	SMP	TAL SAV
Instrument ID: CMSAB										
Total/NA	Prep	5035A			4.124 g	5 mL	659051	03/11/21 10:19	FES	TAL SAV
Total/NA	Analysis	8015D		2000	5 mL	5 mL	659263	03/12/21 15:23	DBM	TAL SAV
Instrument ID: CVGWFD1										
Total/NA	Prep	3546			15.25 g	1 mL	659183	03/12/21 07:28	MEW	TAL SAV
Total/NA	Analysis	8015D		5			659296	03/13/21 03:11	DBM	TAL SAV
Instrument ID: CSGAB1										

Client Sample ID: PC5-SB-DUP

Lab Sample ID: 680-196067-13

Date Collected: 03/10/21 03:00

Matrix: Solid

Date Received: 03/10/21 13:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			658982	03/11/21 07:20	JEB	TAL SAV
Instrument ID: NOEQUIP										

Client Sample ID: PC5-SB-DUP

Lab Sample ID: 680-196067-13

Date Collected: 03/10/21 03:00

Matrix: Solid

Date Received: 03/10/21 13:45

Percent Solids: 80.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			4.08 g	5 mL	659051	03/11/21 10:19	FES	TAL SAV
Total/NA	Analysis	8260B		1	1 uL	5 mL	660677	03/22/21 16:17	SMP	TAL SAV
Instrument ID: CMSAB										
Total/NA	Prep	5035A			4.08 g	5 mL	659051	03/11/21 10:19	FES	TAL SAV
Total/NA	Analysis	8015D		2000	5 mL	5 mL	659263	03/12/21 15:45	DBM	TAL SAV
Instrument ID: CVGWFD1										
Total/NA	Prep	3546			15.17 g	1 mL	659183	03/12/21 07:28	MEW	TAL SAV
Total/NA	Analysis	8015D		5			659296	03/13/21 03:26	DBM	TAL SAV
Instrument ID: CSGAB1										

Lab Chronicle

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Client Sample ID: Trip Blank 1
Date Collected: 03/08/21 00:00
Date Received: 03/10/21 13:45

Lab Sample ID: 680-196067-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	659401	03/13/21 16:02	EMA	TAL SAV
Instrument ID: CMSAA										

Client Sample ID: Trip Blank 2
Date Collected: 03/08/21 00:00
Date Received: 03/10/21 13:45

Lab Sample ID: 680-196067-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	659401	03/13/21 16:28	EMA	TAL SAV
Instrument ID: CMSAA										

Laboratory References:

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Laboratory: Eurofins TestAmerica, Savannah

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Florida	NELAP	E87052	06-30-21

1

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Method Summary

Client: Tetra Tech EM Inc.
Project/Site: Brunswick

Job ID: 680-196067-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL SAV
8015D	Gasoline Range Organics (GRO) (GC)	SW846	TAL SAV
8015D	Diesel Range Organics (DRO) (GC)	SW846	TAL SAV
Moisture	Percent Moisture	EPA	TAL SAV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL SAV
3546	Microwave Extraction	SW846	TAL SAV
5030B	Purge and Trap	SW846	TAL SAV
5035A	Closed System Purge & Trap	SW846	TAL SAV
5035A	Closed System Purge & Trap/Field Methanol	SW846	TAL SAV

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Address:

[illegible]

Address:

[illegible]

Login Sample Receipt Checklist

Client: Tetra Tech EM Inc.

Job Number: 680-196067-1

Login Number: 196067

List Source: Eurofins TestAmerica, Savannah

List Number: 1

Creator: Banda, Christy S

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	False	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	